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ABSTRACT

This handbook is divided into two parts. Part 1 focuses on being a teaching assistant and ideas for teaching. Sections of this part cover: (1) university policies applicable to teaching assistants and behavior guidelines; (2) teaching tips; (3) lecturing techniques; (4) discussion and laboratory sections; (5) using questions; (6) demonstrations; (7) testing and grading and writing examinations; and (8) academic dishonesty and resources available in the bookstore. Part 2 is specific to the University of Delaware and provides a guide to campus resources. (JD)

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Handbook for Teaching Assistants

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the TA at U of D

Center for Teaching Effectiveness
University of Delaware

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HANDBOOK FOR TEACHING ASSISTANTS: THE TA AT U OF D

FOURTH EDITION

CENTER FOR TEACHING EFFECTIVENESS

UNIVERSITY OF DELAWARE

August 1988

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PREFACE

As a Teaching Assistant you are a key resource in assuring the quality of our undergraduate instruction. You are a member of the instructional team and a vital link between the faculty and undergraduate students. One of your major functions is to support and encourage students in their efforts to learn. Teaching can be a highly personal process and as you gain experience you will develop your own style. Your teaching related duties will vary within departments and you will see and hear a variety of strategies that work. No single source will contain the "right" way to teach. There are many excellent resources available to you; this HANDBOOK is one of them. The HANDBOOK is not intended as a complete resource, only as an introduction to the possibilities. We hope you will find material here which will help you experience success in your teaching.

The HANDBOOK is divided into two parts. Part I focuses on being a TA and ideas for teaching. Our colleagues at Stanford, UCLA, UC-San Diego, and UILL, Urbana-Champaign have contributed to this HANDBOOK by permitting reprints of some of their materials. Part II is an update of GUIDE TO CAMPUS RESOURCES FOR NEW FACULTY AND GRADUATE ASSISTANTS.

We want this HANDBOOK to be a useful resource and will continue to revise it. We invite your comments and suggestions. Please call 451-2027 or send your ideas to us at Center for Teaching Effectiveness, 132 Newark Hall.

Judy G. Bailey, Ed.D.
Assistant Director
August, 1988

CENTER FOR TEACHING EFFECTIVENESS

CONTACT: See next page

The Center for Teaching Effectiveness, located behind Newark Hall, assists faculty and graduate TAs to provide effective instruction for University of Delaware students. Our task is to help faculty and TAs maximize the probability that students will benefit from the expertise available within this University.

The University, in establishing this Center, has joined other major universities in recognizing that how we teach, evaluate learning, and communicate with students directly affects students' ability to master course content and to grow in their scholarly and professional capabilities. Higher education scholars further recognize that attention to teaching can provide faculty with an important source of professional renewal and development.

We offer confidential consultation, training, information, and instructional research assistance to faculty, TAs, and departments interested in developing teaching excellence. We also coordinate a grants program that provides funding for teaching-related projects.

SERVICES AND PROGRAMS

Your interests and needs will determine how we work with you on a particular request. For example, we can meet with you to discuss ideas for using new instructional methods; we can help you plan and organize departmental workshops or discussion groups on topics ranging from improving tests to how you can help students learn the content in your discipline or what your department might do to reduce student attrition; we can assist you in designing and implementing a classroom research project; or we can work with departmental committees to review materials used to evaluate teaching.

You may also request a confidential interview to discuss areas of concern in your teaching. If you want to take a closer look at your teaching methods or materials, we can provide classroom observation or videotaping, nationally normed student evaluation and interpretation of results, review of testing materials and test analysis data, or other assistance appropriate to your needs. Consultations about teaching data provide you with guidance and support while you take a fresh look at what happens in your classroom.

Using the resources of University of Delaware faculty and faculty from other colleges and universities, the Center regularly sponsors workshops, panel discussions, seminars, lectures, and colloquia on topics related to teaching effectiveness. Topics have included student learning, evaluation of learning and instruction, classroom management techniques, and grading; planned topics include preparing an effective syllabus, helping students to think critically, and writing about teaching for publication. We welcome suggestions for topics and presenters.

PUBLICATIONS

ABOUT TEACHING, a quarterly publication of the Center, reports teaching-related developments on campus and nationally. ABOUT TEACHING also offers tips on teaching, reflections on current teaching issues, and information on locally available

resources related to teaching and learning. We invite you to submit ideas or brief articles (1000-1500 words) for possible inclusion in this publication.

The Center maintains a library of books, journals, tapes, and other documents on teaching. You may borrow any of these resources or browse through them in our Resource Room during regular working hours.

FINANCIAL RESOURCES

The Center administers University grants of $1500 to $4000 for summer course development projects, grants up to $2000 for departmental curriculum concerns, supplemental grants for materials, guest speakers, and other uses not funded in department budgets up to $500, and grants up to $200 for travel to teaching conferences. Grant recipients share the results of their projects with colleagues through reports and publications.

ELIGIBILITY

Our services are available to anyone in the University with teaching or advising responsibilities. For more information or to schedule a consultation, simply call Susan Pitcher at extension 2027.

This guide is provided as a service of the CTE. We appreciate comments and suggestions for future editions.

Harry Shipman, Director	2027
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PART I

ON BEING A TA

UNIVERSITY POLICIES APPLICABLE TO TEACHING ASSISTANTS

Several University policies apply to the appointment of teaching assistants.

Academic Status and Registration Requirements

TA appointments are awarded only to full-time graduate students in regular status and in good academic standing. Full-time means the TA must register for at least 6 credits of graduate-level courses, taken for credit (not as a listener), and must maintain that minimum registration throughout each semester that the student is on contract. These credits may include thesis, research, or independent study. In addition to the minimum requirement, other graduate courses or undergraduate courses may be taken for credit or as a listener, though the student is cautioned not to become over-committed. Regular status means the student is a matriculated student with no academic or administrative conditions, in contrast to provisional, non-degree, or transient status. Good academic standing means the student's cumulative academic index is 3.0 or above.

Work-load and Other Employment

Students under contract as TAs are expected to be committed full time to their studies and TA duties. Teaching Assistants may not be employed otherwise, either at the University or elsewhere, during the regular semester. Departures from this policy will be approved by the Graduate Office only in special cases. This will require the assurance of the department chair or graduate program director that this additional work will not impede progress toward the degree and is consistent with the student's degree program.

Teaching Assistants are normally expected to give 20 hours a week to the department up to and including the last day of the semester.

Teaching Assistants are not required to perform any services during Winter Term as part of their contract for either one or both semesters. They may have supplemental contracts to assist or to teach courses in Winter Term. They are not required to register for course work during the Winter Term while they hold such a contract.

Since Teaching Assistants are under contract to perform services for either the first or second semester, or both, they may be required to complete such services or prepare for such services during the Winter Term.

Teaching Assistants may hold supplemental contracts during the Summer Sessions; they are not required to register to hold such a contract.

Tuition

Graduate students holding a TA contract are also eligible to hold a tuition scholarship for each regular semester that the contract is in force. Tuition scholarships DO NOT carry tuition remission for Winter Term or either Summer Session.

Appointment

TA initial appointments and reappointments are made at the department level and are based on criteria established by the hiring department.

Stipend

TA stipends are determined by the student's experience. For 1988-89 the three stipend levels are as follows:

1.	Initial appointments of first-year graduate students	$7785
2.	Second-year graduate students or initial appointment of graduate students entering with a master's degree.	$8175
3.	Graduate students having two or more years of graduate work with a high scholastic record and teaching qualifications and experience.	$8625

Stipends are paid over the 9-month academic year.

Taxation

TA stipends are treated as wages paid for a service and are thus subject to federal and state income taxes. If a TA also holds a tuition scholarship, the tuition scholarship is not subject to income taxes.

Accident and Sickness Insurance

Graduate students holding a TA contract are covered by a student accident and sickness insurance policy at University expense. This policy provides coverage only for the student; coverage for the student's spouse and/or children is available through the Treasurer's Office at the student's expense.

For students under contract for the full academic year coverage will extend from September 1 through the next August 31. For students under contract for the Fall semester only, coverage will extend from September 1 through January 31. For students under contract for the Spring Semester only, coverage will extend from February 1 through August 31.

The coverage provided by this insurance applies only to accident benefits, sickness benefits and major medical benefits. A brochure describing the coverage in detail is included in the registration package for September. Additional copies of the brochure are available in the Cashier's Office, Hullihen Hall.

Student Health Fee

A student health fee is automatically assessed all full-time students each semester, entitling them to use the Health Service during the semester. This health fee is not covered by the TA contract, but must be paid by the individual student.

Sexual Harassment

The University of Delaware officially defines sexual harassment as "any unwelcome sexual advances or requests for sexual favors and other verbal or physical conduct of a sexual nature that has the effect or purpose of unreasonably interfering with an individual's work or academic environment, or of affecting an individual's employment or academic status." Sexual harassment is not only a clear violation of University policy, it is illegal.

The University will carry out a thorough investigation in formal complaint situations to protect the rights of both the person complaining and the alleged harasser. Informal complaint situations are also very successfully handled by the University. Complaints may be reported to:

OFFICES:

S.O.S. (Support Group for Victims of Sexual Offense) (Ask for an S.O.S. volunteer) Hotline		451-2226
Wellspring	001 Laurel Hall	451-8992
Center for Counseling and Student Development	261 Student Center	451-2141
Public Safety	79 Amstel Avenue Investigation Division Evenings and Weekends	 451-2683 451-2222
Dean of Students	218 Hullihen Hall	451-8939

INDIVIDUALS:

Women's Affairs Liane Sorenson	219 McDowell Hall	451-8063
Minority Affairs Judith Y. Gibson	305 Hullihen Hall	451-8735
Graduate Office Mary J. Martin	234 Hullihen Hall	451-2129
Affirmative Action Muhammad Ahmed	307 Hullihen Hall	451-2835

NOTE: See also the following:

FACULTY HANDBOOK, University of Delaware,
Section III-B-2, Revised 4-30-84.

PERSONNEL POLICY & PROCEDURES MANUAL FOR PROFESSIONAL AND SALARIED STAFF.

BEHAVIOR GUIDELINES FOR TEACHING ASSISTANTS

Teaching assistants responsible for classroom or laboratory instruction are expected to maintain standards of professional ethics appropriate for any member of a university faculty.

Classes should be conducted and material presented in accordance with objectives of the instructor to whom you are assigned. Teaching assistants whose responsibilities include grading should establish clear, firm, and consistent objective standards for evaluating student performance and should assign grades only on the basis of those standards. Make yourself reasonably accessible to students by keeping regularly scheduled office hours.

All students should be equally encouraged to express themselves in class discussion, and all should be treated with equal respect. Jokes or disparaging remarks about individuals based on their sex, race, handicapped status, religion, or national origin are inappropriate and unacceptable in the classroom and outside of it. In addition, neither disparaging remarks nor racist or sexist behavior by students should be permitted in the classroom.

Racism, sexism, and sexual harassment are sensitive and troubling issues. All can seriously limit or damage a student's ability to take full advantage of educational opportunities at the University. Avoid using sexist or racist language and instructional materials, terms of endearment when addressing students, and sexual innuendo in lectures or interaction with students. Using the power and influence of your position to force sexual cooperation from students is unacceptable and a violation of University policy; it may also provide the basis of legal action against you, your department, and/or the University. Such behavior is considered a violation of Title IX of the Education Amendments and Title VII of the Civil Rights Act of 1964, as well as University policy. It could result in disciplinary action against you and in the loss of federal monies to the University.

Maintain your integrity by establishing a strictly professional relationship with students inside and outside of the classroom. For the protection of you and your students, be aware of grievance procedures available in the Student Guide to Policies and the Faculty Handbook, as well as the resources to handle complaints informally, in cases of sexual harassment and racial discrimination.

GRADUATE STUDENT ASSOCIATION

The Graduate Student Association (GSA) represents the needs and interests of graduate students as a campus service organization. It also sponsors social events open to all graduate students. These students are automatically members of the GSA but no membership fees are charged.

The GSA appoints representatives to Faculty Senate committee, publishes a newsletter, holds an orientation at the beginning of the academic year, and co-sponsors the TA Workshop.

The GSA is registered with and is supported by the Office of Graduate Studies. Elected officers may be contacted through the Office of Graduate Studies, 234 Hullihen Hall, telephone 451-2129.

YOUR NOTES:

THE TA AND THE DEPARTMENT

Your department is responsible for all of your work as a TA, from making your assignment to supervising and evaluating your classroom performance.

Some departments also conduct periodic reviews and evaluations of their TAs and make the results of such evaluations available to the TAs. Departments may handle the evaluation of TAs in a variety of ways. The faculty member who is responsible for the instruction of the course in which a TA is assigned may visit the TA's section periodically. In addition, most departments utilize student evaluation as a means of assessing TA performance.

When you have a question relating to your TAship, your department is the primary source to consult. Department secretaries and administrative assistants are often good sources of information on administrative matters. The faculty member in charge of the course to which you are assigned will also be able to answer many of your questions. The department chairperson has the ultimate responsibility for TAs in the department, although in large departments this responsibility may be delegated to a vice chairperson or to a graduate adviser.

Departments generally provide TAs with office space, laboratory space and other facilities necessary for effective teaching. These usually include a desk, shelf space, mailbox, and access to a typewriter, duplicating equipment, and telephone.

DEPARTMENTAL RESOURCE PEOPLE:

	Name	Ext.	Type of Information
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

TA-FACULTY RELATIONSHIPS[1]

Misunderstandings occur between TAs and professors when both take each other for granted and expect one to guess the needs and feelings of the other. One professor might want course materials brought from the library. Another might want you to come to his or her office 15 minutes before class. Professors who have worked with many TAs sometimes assume every TA knows all of their wishes. And TAs who are new to a professor need to be told what is expected. Experience shows that it helps to ask specific questions: "Shall I come up before class tomorrow? Are there any handouts?"

If you have too much work or if there are problems of other kinds, it almost always helps to talk to the professor. Let the professor know that you respect and trust him or her, and that you understand his or her situation and point of view, too.

The most important element in a relationship between a TA and the faculty member responsible for the class is open communication. This should be established at the beginning of the quarter and maintained throughout the course. TAs and professors should discuss the framework and the background of the course so that they can work together to teach the course more effectively. TAs should ask the professor for his or her decisions on many of the following matters before the course begins:

* How much latitude does the TA have in the course?
* What exactly are the goals of the course?
* Is there a guiding methodology for the course with which TAs (and students) should be familiar?
* Are there any additional materials that would help the TA be better prepared for the course?
* What is the procedure for handling student complaints? Issues of plagiarism or cheating?
* Who will be making up the exams? What kinds of exams will they be?
* How exactly are grades to be determined?

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[1]Reprinted with permission from: Unruh, D. (Ed.). THE TA AT UCLA: 1984-85 HANDBOOK. Copyrighted 1984 by Regents of the University of California.

GRADUATE TEACHING ASSISTANT CHECKLIST: QUESTIONS TO ASK

I. Will I be lecturing?

* On a regular basis?
* Occasionally?
* When the instructor is absent?

II. Will I be leading discussions?

* On a regular basis?
* Occasionally?
* When the instructor is absent?

If yes, should I:

* Stay close to the text?
* Stay close to the lectures?
* Encourage all students to talk?
* Do most of the talking?
* Deal only with their problems in discussions?

III. Will I be tutoring and/or giving individual assistance?

* How much help is too much?
* What kind of assistance shouldn't I give?
* Should I organize group help/review sessions?

IV. Will I be conducting/supervising laboratories?

* Keeping track of supplies and materials?
* Obtaining supplies and materials?
* Designing or revising experiments?
* Giving demonstrations?
* In case of emergency or accident, what do I do?

V. Will I be using AV material/equipment?

* What equipment?
* Am I responsible for getting and returning it?
* Who do I call to schedule equipment?

VI. Will I be evaluating/grading papers, projects, reports, quizzes, examinations, student participation?

* Are the criteria for assigning grades clear?
* Is the process/formula for combining graded work to come up with a final course grade clear?
* Will the instructor review disputed grades?
* Will I review disputed grades given by the instructor?
* How much time will I have for grading?
* Should I make two copies of all grades?

VII. How much autonomy will I have:

* To try things?
* To present new ideas?
* To present perspectives different from the instructor's?

VIII. What about my office hours?

* How many hours per week?
* When?
* Should they be coordinated with the instructor's?
* If you have work for me after my required 20 hrs/wk, what is the best way to tell you so as not to create conflict?

IX. Who will supervise me?

* How?
* How often?

X. What should I do, whom should I contact, if I can't make a lab/discussion section?

XI. What other responsibilities will I have?

OFFICE HOURS[2]

The TA's office is an important extension of the classroom. This is one of the few places where the protective shield of impersonality at a university can be broken. Every TA must have office hours but the students may not be required to come in during those times. Usually office hours are scheduled before the semester begins and announced to the students during the first week. One alternative is to check with the students about convenient times before scheduling your office hours.

How do you get students to come in? Let them know frequently that they are welcome. Invite them individually. A comment on a paper (e.g., "Please see me about this.") brings about a 75 % response. Stress the importance and value of office visits both to you and to them. Most TAs deal with freshmen and sophomores who are not used to personal contact at the University. If those first few who come in have positive experiences, the word will spread. Some TAs find that posting the answers to quiz or homework problems inside the door is an effective means of attracting students to office hours.

Getting students to come to your office hours is not always a problem; you may find that many students will come in, and for many different reasons. You may find yourself helping a student with the material for the course you are TAing, with the logistics of a course that contains unfamiliar material, or with a personal problem. You should be aware of ways to facilitate a helpful tutorial or counseling session:

* Try to be as approachable as possible. The best thing to do when a student comes in to your office hours is to make him or her feel welcome. It is very easy to make students feel that they are intruding; it takes only a little bit of care to create a relaxed, pleasant atmosphere in which communication is natural and easy.

* Rely on the student to tell you what he or she has come to see you about. You may suspect some hidden problem, but you should not press the student to disclose it. You can help the students if they actively request your help, but your responsibility need not extend further than responding to their requests.

* Listen to your students when they come to your office hours. Give them your undivided attention. This is all part of making students feel welcome and encouraging communication. The best way to show that you are listening is to ask questions--it also shows students that you find their concerns important. Students often fear that they are wasting your time; by listening attentively and responding thoughtfully, you can help allay their anxiety.

* Finally, you should realize that you won't always be able to provide the answers or information that are needed. If you are tutoring a student in the material for your own course, there is nothing wrong with saying, " I don't know, but I can find out for you."

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[2]Reprinted with permission from: Unruh, D. (Ed.). THE TA AT UCLA: 1984-85 HANDBOOK. Copyrighted 1984 by Regents of the University of California.

In a situation in which a student is asking for more personal counseling, remember that you are not always the best qualified person for the student to be talking to. If you feel that the student needs more specific advice, you may be able to suggest someone who can provide it. Part II of this handbook has been compiled to serve as a referral list for you. It may not be able to solve all of the problems you are confronted with, but it is a start.

NOTES:

SURVIVAL TIPS FOR THE FIRST CLASS MEETING[3]

A. Locate and visit the classroom assigned to you. This will eliminate the possibility of becoming lost somewhere on campus and showing up late the first day. This inspection may influence future planning considerations, i.e., arrangement of furniture, electrical outlets for media and location of chalkboards.

B. Write on the chalkboard:

(1) The course and section. (You might be surprised at the number of students and faculty that find themselves in the wrong classroom on the first day.)

(2) Your name.

(3) Your office and office hours.

(4) Your home phone number (optional). If you release your home number, you might want to stipulate when you will accept calls.

C. Introduce yourself. You may want to tell the students something about your academic background or professional interests.

D. Is there any information about your students that you would like to know? Students can provide this on 3 x 5 cards. These cards can also aid you in learning student's names.

E. One of the most important functions of the first day of class is to indicate how your section fits in with the structure of the course. The students should know what is expected of them in your section as it relates to the course objectives set by your supervising professor.

F. Students generally want to know about anything affecting their grades: attendance, test and quiz policies, homework, how much work the course requires, your expectations, and your grading policy.

G. Ask students what they intend to get out of the course.

H. Discuss how the course fits into the general curriculum or provide an overview of the content to be covered.

I. If appropriate, discuss the texts, required readings, or reserved readings in the library.

J. Much of the above information can be included in a course syllabus or outline distributed to students during the first session.

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[3]Adapted, with permission, from: HANDBOOK FOR TEACHING ASSISTANTS AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. Office of Instructional Resources, 1980.

The first few class meetings often set the tone for the remainder of the semester. With this in mind, you should have an organized plan written down on paper. Know what you intend to say and do before you get in front of the group. Students appreciate sessions that are organized and have a sense of purpose.

NOTES:

ESTABLISHING THE CLASSROOM CLIMATE[4]

A. Arrive a few minutes early to chat with students about the course assignments or campus events.

B. Stay after class to answer questions.

C. Encourage students to ask questions during class.

D. Acknowledge and reinforce students' contributions.

E. Be tolerant of other viewpoints.

F. Keep office hours.

G. Invite students to stop by the office to discuss their performance on tests, quizzes, and assignments.

H. Attempt to learn student's names.

I. Meet with small groups of students to discuss how the course is progressing.

J. Ask volunteers to interview classmates about their perceptions of your teaching.

K. Obtain feedback from the group about your teaching by using mid-semester or frequent student evaluation questionnaires.

L. Hold extra help or review sessions outside of regularly scheduled classes.

NOTES:

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[4]Adapted, with permission, from: HANDBOOK FOR TEACHING ASSISTANTS AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. Office of Instructional Resources, 1980.

ESTABLISHING RAPPORT[5]

1. Find out what excites and worries students. Early in each class, ask them what they are most motivated to discuss.

2. Put the chairs in a circle or a similar open form which enables people to gain one another's attention and see reactions.

3. Arrive early and chat with the first few students to arrive, about the lecture, how the class is going, the game they just came from, or whatever comes up casually. Do the same after class.

4. Use varied formats to encourage different kinds of students. Some will be most vocal in small subgroups; some like to play to the whole class; others enjoy a debate atmosphere.

5. Make clear the kind or range of answer you are looking for, and don't get students tied up in guessing what you want.

6. Make lots of eye contact. Try to exchange glances, smiles, and so on with students, and don't just stick to the most responsive students; seek contact with the less participative as well.

7. Require each student to come to office hours at least once, to build personal contact.

8. Be alert to nonverbal cues of interest or readiness to speak, and call on those who look ready.

9. Get to know the individual interests of students, and refer to them in class when the opportunity arises.

10. Go out of your way to encourage students who say little in class. Informally try to find out why they can't (shyness, lack of interest, a feeling they aren't competent). They may represent a segment of the class not being reached by the current approach; build in a place for their concerns.

NOTES:

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[5]Adapted with permission from: Unruh, D. (Ed.). THE TA AT UCLA: 1984-85 HANDBOOK. Copyrighted 1984 by the Regents of the University of California.

BUILDING A SUPPORTIVE CLASSROOM ENVIRONMENT[6]

These suggestions are easy and require neither expense nor administrative decisions. They can be quickly implemented, often just on your own initiative or with the help of one or two others.

1. LEARN STUDENT NAMES.

   This seems like a simple suggestion, but it has profound results. All of us respond to being approached individually and personally, and the logical way of beginning that process is calling us by our names. The immediate problem is how to learn the names of 100 or more students each semester. One way of approaching the problem is telling students on the first day of class that they may sit anywhere they choose but that you would like them to sit in the same place for a week or two: tell them that that way you can make a seating chart and learn their names more quickly. For a few days, initially, students can wear name tags, perhaps with just the first names highly visible so that you can see the name and reinforce name and face associations. You can have students introduce themselves and focus on their names--how did they get their names, do they have nicknames, what do they prefer to be called, or why do or don't they like their names. Perhaps you can ask your students to give a brief portrait of themselves in which they concentrate on their names.

2. PROVIDE NONVERBAL ENCOURAGEMENT.

   Provide a secure, reassuring, positive atmosphere. There are several ways of encouraging such an environment that don't involve the spoken word. Maintain eye contact with students. Move around the room. It is important that you be animated and expressive in your presentation. Control nervous mannerisms. Fiddling with a tie or with a lock of hair indicates to students that you are not self-confident. This can be particularly unnerving to some students. These students react positively to teachers who seem to be firmly in control of the situation.

3. AVOID JUDGING STUDENTS.

   Without realizing it, teachers can exhibit judging behaviors that discourage nontraditional students by making them feel even more inadequate than they already feel. A behavior to avoid is judging students on the basis of appearance or dress. We must not allow ourselves to be turned off by a student who is unkempt or who is wearing nontraditional clothing such as motorcycle apparel or punk-type apparel. Another behavior to avoid is sexual stereotyping: we may unconsciously assume that females have a certain set of interests and males have another. Age stereotyping is another judgment trap. We may expect certain behaviors from people in certain age groups; for example, we may assume that older students are automatically more self-assured or serious about their work than are eighteen-year-olds. As much as we may believe that we are not prejudiced, racial or ethnic considerations can cause us to react subconsciously in ways that students find disturbing. For example, do you expect different attendance patterns from certain groups of students? Do you find yourself avoiding certain subjects in the classroom because of the fear of offending somebody? Do you tend to target your examples towards certain groups in

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[6]Armes, N.R. and Archer, P. F., Building Success in the Classroom. NY: Media Systems Corporation, 1980, pp 17-23.

your class? Do you assume students have certain expertise based on racial or ethnic characteristics? Becoming aware of this type of judging behavior can help us avoid it.

4. LEARN SOMETHING PERSONAL ABOUT EACH STUDENT.

This sounds simple, but it requires some effort and energy on the part of the teacher. This strategy is an extension of the suggestion to learn your students' names; it is one step further in the process of personalizing relationships. Learning how many children a student has, what his personal interests and hobbies are, or what kinds of books she likes to read can help you establish fairly quickly a warm relationship with that student. Teachers of composition courses might have an advantage here because students often reveal personal areas of their lives in writing; but whatever your discipline, you need to find ways of bringing out students' personal interests. Perhaps asking students for a brief self-assessment at the beginning of the semester would be helpful. Asking them simple questions such as "Where did you go to high school?" "Are you married?" "Do you have children?" "What kinds of things do you like to do in your spare time?" can get them started.

5. RELATE TO STUDENTS ON A PERSONAL LEVEL.

This is the complementary side of learning something personal about each student. It is important for you to be willing to share parts of yourself and of your personal life with your students if you expect them to share with you. There are a number of easy ways of accomplishing this. In classroom presentation you can speak occasionally from personal experience. If you ask students to write a paragraph describing a personality of someone they are close to, you can write as an example a paragraph describing one of your children or your spouse or your parent. There is a great deal to be said for sharing the immediacy of a personal experience, whether your car just broke down or you just had a hassle with the baby sitter. You can express those feelings spontaneously in an informal way and find your students responding to you not only as an authority figure but as a person. However, use discretion with this technique; no one wants to spend a semester listening to an instructor tell nothing but war stores. If you ask your students for a brief self-assessment, you might give them a similar assessment of yourself. Let them ask you questions about yourself on the first day of class. Explain that since you expect them to share some personal characteristics with you, you are willing to share some with them. Let them interview you.

6. PROVIDE SPECIFIC POSITIVE REINFORCEMENT.

Taking the time to compliment a student on some specific thing that he or she has done well can have tremendous payoffs for a teacher. The key here is specificity. A student will sense a lack of genuineness if you compliment profusely and generally, but if you can pick out one particular element of her work or one particular aspect of his attitude that you like, your comment will have much more meaning. A student who has written a paper that is not particularly effective but who has used a striking metaphor, for example, can be complimented on that use. You may compliment a student on the perceptiveness of her question; if you indicate that you remember her asking several other perceptive questions, your compliment will be more impressive. One word of caution here is that you need to be alert and sensitive as to how your students are receiving the words. Some students feel uncomfortable about receiving any compliments at all. Such students will become more uncomfortable

if they continue to receive compliments. An understanding of basic body language and facial expressions is helpful in this instance.

7. TREAT YOUR STUDENTS AS ADULTS.

Sometimes teachers unwittingly put down their students by treating them as children, by overlooking them, or by exhibiting impersonal kinds of behavior. One example that you've probably seen is a teacher turning away from a student to address a colleague who is walking by. If you do not excuse yourself to the student or introduce him to the colleague, you are treating him as less than a responsible adult. Perhaps the most effective approach is introducing your student to the colleague and then asking the student if he minds if you talk with the colleague; you may be able to include the student, at least for a short time.

Another way of making your students feel important is spending time with them. This could be in the coffee shop or in your office. Before and after class you can chat informally with groups. When you meet a student in the hall or on the campus, smiling and giving a personal greeting is very effective. Call the student by name; it makes a great deal of difference. When something particularly important happens to a student--an award or elective office--that you find out about, your mentioning it in or out of class can make the student believe that you care about her as a person. It is easy to point out accomplishments of students who are actively involved in sports or professional groups, who have received awards, or who have been given notice in the newspaper, but there are ways of giving credit to quieter students who do not have such successes. For example, when you are discussing an assignment that you have graded, you might point out that one student in the class had a thorough and effective answer to Number 6 and then read it aloud. if the student is shy, you may not want to call him or her by name; your mentioning the answer in class will convince the student that you noticed something good about the paper.

8. MAKE YOURSELF AVAILABLE.

Any teacher who is responsible for teaching five sections of English Composition or for teaching three lab courses will recognize that this is often a difficult thing to do. However, it is essential, particularly with students who are likely to drop out of school. You are serving as a role model to these students, and keeping reliable office hours gives them a sense of your commitment. If you set office hours, be sure to keep them. Be on time. Spend as much time in the office as you have promised; if for any reason you won't be able to be in your office on a given day, give your students advance notice. You have, in essence, made a contract with them and you should keep it.

Be in class for all of your allotted time. Perpetual tardiness can give students the idea that promptness is not something that you care about.

You may be reluctant to give out your home phone number for fear that students will pester you, but it is important to establish rapport with your students, so perhaps you can find a mutually agreeable approach. The best approach might be to allow your students to call you at home when it is really important. Generally this kind of privilege is not abused, and it does establish a high trust factor. However, if you run into difficulty because of such an arrangement, you might instead set up specific hours during the evening when you will be available. You might allow students to call you on weekends, or you might want to make it clear that students may call you at home only in case

of an emergency. Be diplomatic about whatever rules you set up and approach the question of calling you at home on an adult-to-adult basis.

9. NEVER HUMILIATE A STUDENT.

Although you don't intend to humiliate students, you may inadvertently interact with a student in a way that embarrasses him or calls attention to her and makes her uncomfortable. Even if such embarrassment is subtle, it can discourage a student and make it difficult for him to come back to your class. Avoid sarcasm with nontraditional students, as well as teasing that is destructive in nature. Determining what might be dangerous is sometimes difficult and requires a good bit of perception on the part of the teacher. A young woman, for instance, who has been sheltered may be embarrassed very easily even by a compliment. A general rule of thumb is to respond to students in the same way that they deal with you. If the student teases you, you can feel reasonably assured about responding in the same way.

One rule that's easy to remember is never to exhibit a student's work without his or her permission. Using a student's paper as an example of the wrong way to do something is humiliating, but some students will be embarrassed by having good work exhibited. Again, you must use good judgment.

10. DISCOVER PERSONAL SITUATIONS THAT COULD INTERFERE WITH STUDENT LEARNING.

This can be a formal or informal assessment process; but it is important with some students to discover problems that might arise in their scheduling. Such things as irregular work schedules, babysitter problems, and bus routing problems can wreak havoc with a student's class attendance; it is to your advantage to learn about these problems ahead of time so that you can try to help the student overcome them. Be aware that your college students may have safety concerns about coming to campus after dark. If this is the case with your evening students, you might arrange for a security guard in the parking lot, post a car pool list in the classroom, or help arrange "walking partners" back to the dorm or bus stop.

11. BE AS POSITIVE AS POSSIBLE.

This is not easy when you are having a hard day, but there are some techniques that will make you and your students feel positive. Voice quality, for instance, is extremely important. Be energetic and bright in your inflection. A monotone or a deep, tired voice will give away your lack of interest. Be willing to laugh in class, and encourage your students to laugh as well. If at all possible, be available before class for small talk, chatting, greeting students. Sometimes this will be therapeutic for you; if your energy level is running low, a few exchanges with students will energize you.

12. READ INATTENTIVE BEHAVIORS.

We all have observed inattentive behavior in teaching situations. Some behaviors to look for are shuffling or shifting in chairs, persistent coughing by one or more students, glances at other students or watches, stacking books when there are five minutes left in the class period. These behaviors indicate that you have lost student attention. Also notice posture, attitude, lack of eye contact.

When you notice such behaviors, your response should be immediate and decisive. Silence is often effective in regaining student attention. Calling the student by name to engage him or her in conversation should dispel the student's inattention. If a student senses your presence close by, he or she may become alert. Changing the pace of the class can be most effective. For example, switching from a lecture to a small-group activity can wake up the class. Breaking the rhythm of your usual behavior can break the monotony. Another suggestion is allowing breaks, particularly in classes over an hour and fifteen minutes long.

13. COMMIT YOURSELF TO AT LEAST ONE INDIVIDUAL CONFERENCE WITH EACH STUDENT.

These conferences need not be long when the students do not have significant problems. They may simply be friendly, personal conversations. Yet this kind of conference shows the student that you care about him or her. For those students with significant problems, however, the conference is crucial. Often a conference is the only means of convincing them of your interest. Sometimes you yourself can solve some of the student's problems, or you can guide the student to someone who can help him or her. A surprising number of students are not familiar with the counseling services available at their university.

Teacher evaluations show that this individual conference is often the element that students appreciate most.

14. TELEPHONE STUDENTS WHEN HIGH-RISK PATTERNS DEVELOP.

Examples of high-risk patterns are several missed assignments, chronic absences, and perpetual tardiness. Telephoning students can be an effective way of reaching them; students are often impressed that an instructor would take the time to call them. (i.e., We missed you in class today. How can I get the missed material to you?)

One word of caution is in order here. Discuss the problem only with the student. Confidentiality is always important. Respect the student as an adult and keep information concerning his or her performance confidential!

15. DEVOTE THE FIRST WEEK OF CLASSES TO CREATING A POSITIVE LEARNING ENVIRONMENT.

Research indicates that students who feel comfortable in the classroom setting and who have some positive rapport with the teacher are much more likely to speed up learning processes as the semester goes on. Students often surpass normal course expectations if they feel very positive about the learning climate. In the long run you will accomplish more learning by devoting the first few classes to creating a supportive environment.

NOTES:

COMMUNICATION CHECKLIST[7]

Faculty and TAs may find it difficult to be aware of the interactional dynamics in the classroom while simultaneously transmitting lecture content or guiding a discussion. Below is a brief summary of key points arranged in a convenient checklist.

A. Techniques

1. Have a friend, colleague, or teaching assistant observe some specific behaviors of your own or your students' that you want carefully observed. This informal observation may give a perspective on that behavior about which you were not aware.

2. A student can tape record some of your classes. Self analysis of tapes can provide answers to questions such as:

   - What language patterns am I using? Is there a regular use of male referencing, or the generic "he," or the universal "man"? Are stereotypical assumptions about men and women or people of color revealed in classroom dialogue?

   - Are examples and anecdotes drawn from men's lives or white culture only?

   - Can differential patterns of reinforcement be detected from the tapes?

B. Classroom interactions.

1. Are you conscious of sex- or race-related expectations you may hold about student performance?

2. How do you react to uses of language (accent, dialect, etc.) that depart from standard English or that are different from your own? Do you discount the speaker's intelligence and information?

3. What is the number of males versus females or students of various racial groups called on to answer questions? Which students do you call by name? Why?

4. Which of these categories of students participate in class more frequently through answering questions or making comments? Is the number disproportional enough that you should encourage some students to participate more frequently?

5. Do interruptions occur when an individual is talking? If so, who does the interrupting? One group of students is dominating classroom interaction, what do you do about it?

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[7]Reprinted with permission from: Jenkins, M. L., Gappa, J. M., and Pearce, J. REMOVING BIAS: GUIDELINES FOR STUDENT-FACULTY COMMUNICATION, Speech Communications Association, Annandale, VA: 1983, pp. 46-47.

6. Is your verbal response to students positive? Aversive? Encouraging? Is it the same for all students? If not, what is the reason? (Valid reasons occur from time to time for reacting or responding to a particular student in a highly specific manner.)

7. Do you tend to face or address one section of the classroom more than others? Do you establish eye contact with certain students more than others? What are the gestures, postures, and facial expressions used; and are they different for men, women, or people of color?

C. Texts, Lectures and Course Content.

1. Do you and the texts you choose use language that is sex-neutral? If your texts use the masculine generic, do you point this out in the classroom?

2. Do your texts and lectures incorporate new research and theory about men, women, and people of color? If not, do you point out areas in which scholarship about gender and race is modifying the discipline? Do you provide additional bibliographic references for students who want to pursue these issues? When you order books for the library, do they reflect these changes in the discipline?

3. Do your lectures and texts portray the activities, achievements, concerns, and experiences of women and people of color? If your texts do not, do you provide supplemental materials? Do you bring omissions to the attention of your students?

4. Do your lectures and texts present the careers, roles, interests, and abilities of women and people of color without stereotyping? If there are stereotypes in your texts, do you point this out?

5. Do your lectures and texts use balanced examples and illustrations (both verbal and graphic) in terms of gender and race? If your texts do not, do you point this out?

6. Do your texts and lectures reflect values that are free of sex and race bias, and, if not, do you discuss your/their biases and values with your students?

7. Do your exams and assignments encourage students to explore the roles, status, contributions, and experiences of women and people of color?

AN EFFECTIVE TA SHOULD BE ABLE TO...[8]

ATMOSPHERE

_____ 1. Establish a climate in which students will want to participate and learn.
_____ 2. Form good rapport with students.
_____ 3. Help students overcome anxiety as an obstacle to learning.

GOALS

_____ 4. Identify students' goals, learning needs, and learning styles.
_____ 5. Define course goals in terms of the performance expected of students and how it is to be measured.
_____ 6. Implement course goals in planning activities geared to produce the desired learning.

DIRECTION

_____ 7. Flexibly guide discussion to produce varying degrees of topic focus versus openendedness.
_____ 8. Incorporate student needs and interests in how class time is used.

PARTICIPATION

_____ 9. Provide opportunities for students to participate in class.
_____10. Ask questions or pose topics which will engage students' interest.
_____11. Encourage students to discuss directly with each other.
_____12. Ask followup questions which will simulate students to elaborate, clarify, and/or support their statements.

THINKING ORGANIZATION

_____13. Organize and present material in ways that help students learn.
_____14. Present and discuss material at varied levels of difficulty and complexity.
_____15. Ask questions or pose topics which will stimulate students to "learn to learn" and become more self-sufficient.

RESPONSE

_____16. Reward students effectively, so that they become increasingly willing to learn and participate.
_____17. Correct students in such a way that they remain involved, rather than withdrawing or otherwise reducing their learning efforts.
_____18. Inform students about their performance in ways that will help them learn better.

FEEDBACK

_____19. Read nonverbal cues as to students' feelings and attitudes.
_____20. Elicit student's reactions as to how the class is working out, so that improvements can be made.

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[8]Reprinted with permission from: Andrews, J. TEACHING ASSISTANCE: A HANDBOOK OF TEACHING IDEAS. TA Development Program, University of California-San Diego, 1982. Copyrighted by Regents of the University of California.

SKILLS OF A GOOD TEACHER[9]

Specific types of courses, i.e., lecture-discussion, lab, lecture, and studio classes, differ in time allotments per credit hour and thus necessitate different types of preparation and teaching methods. The majority of research studies investigating "teacher effectiveness" at the university level, regardless of class organizational structure, have supported the assertion that "good" teachers display: "(1) knowledge and organization of subject matter, (2) skills in instruction, and (3) personal qualities and attitudes useful in working with students." (Eble, 1976).

Knowledge and Organization of Subject Matter

Being knowledgeable about the discipline which you are teaching is expected; however, being all knowing is not a prerequisite of effective teachers. If you aren't sure about answering a question or, more likely, you don't know the answer, don't panic! Students appreciate honesty in instructors in these situations. Offer to look up the answer and you'll be surprised at the reaction of the students...don't forget, you'll also learn as you teach.

Skills in Instruction

N. L. Gage, Director of Research and Development in Teaching at Stanford University, has formulated six characteristics of effective college teaching procedures which might be of interest to you.

Gage (1976) found "effective" presentations of college instructors include:

A. Reviewing main ideas and facts covered in a lesson: at the end of a lesson and at the beginning of the next lesson.

B. Stating objectives at the beginning of a lesson.

C. Outlining the lesson content.

D. Signaling transitions between parts of a lesson.

E. Indicating important points in a lesson.

F. Summarizing the parts of the lesson as the lesson proceeds.

You should be rather satisfied with your initial teaching experiences if you can successfully integrate Gage's six characteristics into your teaching approach. A note of caution must be added however; be aware that not all lessons go off as planned. Allow some class time for reviewing and previewing of material and various unexpected happenings; in other words, be organized and allow for some flexibility in your planning. Instructional skill, as does any valuable talent, takes time to develop. Work on one, or at the most, two skills each week. Try not to be dis-

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[9]Adapted, with permission, from: HANDBOOK FOR TEACHING ASSISTANTS AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. Office of Instructional Resources, 1980.

couraged if at first you do not "knock 'em off their feet." Teaching is not an easy task.

University level teaching encompasses several rather diverse methods of delivery. Specific teaching skills such as "Effective Lecturing Techniques," "Questioning," "Facilitating Discussion," and "Test Construction" are covered in depth in materials available in the Bookstore and through workshops offered each semester by the Center for Teaching Effectiveness.

NOTES:

IDEAS TO REMEMBER[10]

1. In your classroom association with students, remember what it was like to be in a student's shoes....tact and patience always help.

2. The nonverbal communication you display, i.e., posture, facial expression and gesture will very much affect how clearly and receptively your audience reacts to your presentation.

3. Make an honest effort to learn and use the names of the students in your class. Calling students by name appears to help encourage communications between students and instructors. Key: When students know your intent is to help them learn, they rarely object.

4. Plan on utilizing a mid-term evaluation form for the purpose of rating your teaching effectiveness. The Center for Teaching Effectiveness can help you construct an evaluation instrument for your individual course.

5. Do not pass out graded tests or quizzes until you are ready to discuss them.

6. Keep an accurate recording of any data which helps determine final grades. Documented proof will be your valuable help if grading grievances occur.

7. Begin and end class on time! The ten minutes between classes may be needed by students to be on time for the next class.

8. Finally and most importantly, DON'T BE AFRAID TO MAKE MISTAKES!! We learn through trial and error. Don't be discouraged. Teaching is not an easy task, but it does offer a personal sense of satisfaction when you have helped others learn.

YOUR NOTES:

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[10]Adapted, with permission, from: HANDBOOK FOR TEACHING ASSISTANTS AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. Office of Instructional Resources, 1980.

SUGGESTIONS FOR PREPARING YOUR LECTURES[11]

BEFORE CLASS

1. What can I do to prepare my students so that they will be better able to learn from my presentation?

   A. Hand out study guide(s) beforehand which include:
      (1) self-evaluation question.
      (2) an outline of the presentation.
      (3) material difficult to master.

   B. Assign readings and activities as homework before class which:
      (1) relate homework to the presentation.
      (2) include practice self-quizzes keyed to readings.
      (3) include blanks with prompts.

   C. Provide a glossary of key terms and concepts before class.

   D. Use recitation sessions to prepare for presentation.

   E. Prepare classroom climate:
      (1) arrange seating so students can see and hear.
      (2) write agenda/notes on board.
      (3) talk to early arrivals about topic and approach you plan to use.

AT THE START OF MY PRESENTATION

2. What can I do to capture my students' attention--provoke their curiosity so that they will want to attend to what I have to present?

   A. Present an important case which will be solved with new information.

   B. State a strong generalization which contradicts common thought.

   C. Read a powerful quote.

   D. State a series of rhetorical questions that will be answered.

   E. Tell about a difficult to explain action or story.

   F. Make reference to recent news, movies, etc.

   G. Show a demonstration which presents the theme or is difficult to explain.

   H. Introduce puzzling fact(s) which will be understood later.

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[11]Reprinted with permission from: Andrews, J. TEACHING ASSISTANCE: A HANDBOOK OF TEACHING IDEAS. TA Development Program, University of California-San Diego, 1982. Copyrighted by Regents of the University of California.

3. Set the stage.

   A. Summarize previous lectures.

   B. Place presentation in context of course, etc.

   C. Describe your approach. For example: If appropriate, state that a progressive argument will be used.

   D. Define and illustrate all key terms you will be using (even if students are supposed to know them).

4. What can I do to make my presentation important and meaningful to students so that they are motivated to learn?

   A. State why the material is being presented or explain importance of the topic to their future interests.

   B. Relate presentation content to students' interest, backgrounds, values, beliefs, past, present or future activities.

5. What can I do to help students focus on what they should be learning?

   A. State the learning goal (what students will be able to do outside of class).

   B. State the learning objective (what students will be able to do at the end of class with the knowledge gained).

   C. State content and form of exams; supply sample items.

WHEN DESIGNING THE CONTENT OF MY PRESENTATION

6. What can I do to keep students organized?

   A. Present and explain outline of major points of lecture:

      (1) state it verbally.

      (2) write it on board/overhead projector.

      (3) put it in a handout.

7. What can I do to explain complex points fully?

   A. Use an appropriate vocabulary level.

   B. Use a variety of different examples, figures, or illustrations.

   C. Include essential content before "nice to know" content.

   D. Restate points after examples or illustrations.

E. Demonstrate tasks correctly:

(1) explain what to look for.

(2) show and speak slowly.

(3) precede each move by cues as to what to look for.

(4) ask students to mentally analyze the task.

8. What can I do to make ideas and examples more meaningful to students?

A. State or demonstrate examples or illustrations that are:

(1) precise; they fit the idea well.

(2) relevant; they fit the context well.

(3) clever.

(4) curious.

(5) novel.

(6) humorous (jokes or cartoons).

(7) intellectual.

B. Relate ideas and examples to:

(1) students' past experiences.

(2) future work or interests.

(3) recent events.

(4) anecdotes.

(5) humorous events.

C. Use varied media to present examples:

(1) films.

(2) demonstrations.

(3) slides.

(4) overheads.

(5) video tapes/discs.

(6) computers.

(7) chalkboards.

(8) artifacts.

WHEN PRESENTING

9. What can I do to maintain student interest?

   A. Include no more than three major points (chunks of information).

   B. Show where each point fits into the outline as you come to it.

   C. State at least one meaningful example or illustration for each major point.

   D. Maintain eye contact--face the audience even when at the board.

   E. Use telegraphic notes (read quotes only).

   F. Vary stimuli and mood by changing:

      (1) movement/activity
      (2) approach (e.g., use dyad or group discussions within a lecture format).
      (3) voice (volume, speed, pitch).
      (4) content (novelty) or pace.

   G. Speak precisely and audibly.

10. What can I do to minimize distractions?

   A. Adjust room for physical comfort (e.g., close doors, clean board regularly).

   B. Avoid annoying mannerisms (e.g., unnecessary gestures).

   C. Stay on time.

11. What can I do to let the students know what is coming next.

   A. Cue students to attend to important points or visuals.

   B. Relate new points to outline/agenda.

   C. Summarize at end of each segment/major point.

   D. State briefly (outline) what's coming in next segment.

12. What can I do to get students actively involved in practicing ideas/concepts/ principles presented?

   A. Ask the students to respond to:
      (1) a problem
      (2) a case
      (3) a question
      (4) an issue
   which is appropriate to the objectives; then wait (give students time to think).

B. Ask students to respond within a set time period by:
   (1) writing responses.
   (2) comparing responses in pairs or small groups.

C. Ask for questions which deal with a particular idea; don't ask, "any questions?"

D. Ask questions about each major point, first at a recall level, and then gradually increase to more complex levels--comprehension, analysis, synthesis, application, or evaluation.

13. What can I do to let students know if they're learning correctly or incorrectly (without "putting them down")?

A. Verify students' responses by providing them with the correct answer, some possible correct answers, or characteristics of a correct answer by:

   (1) stating it verbally.
   (2) showing it on board or overhead
   (3) passing it out on a handout.
   (4) having a student state answer and verifying it.

B. Recognize correct responses and verbal praise.

C. Prompt wrong responses until a correct answer is obtained by:

   (1) stopping a student (Hold it!).
   (2) describing to a student what he or she is doing.
   (3) asking a diagnostic question.
   (4) eliciting what's wrong.
   (5) explaining the missing idea, if necessary.

   Then allow the student to answer correctly.

WHEN ENDING MY PRESENTATION

14. What can I do to summarize the presentation so that it is meaningful to students and maintains their interest?

A. Restate main points (without cueing that it is a summary) by:

   (1) stating a new example.
   (2) asking for the main points.
   (3) showing where we are now.

B. Refer to next presentation by:

   (1) making a "bridge."
   (2) presenting an attention getter.
   (3) suggesting questions that will be answered (coming attraction).

15. What can I do to make sure students have learned what I wanted them to learn.

   A. Present short (10-minute) quiz testing key ideas (objectives).

   B. Ask students to apply concepts at home.

   C. Ask students to do a self-quiz as an assignment.

16. What can I do to assess my instructional effectiveness?

   A. Ask for feedback via post-class questionnaire.

   B. Ask for feedback via group discussions.

   C. Inquire as to the cause of any unusual behavior displayed by students (e.g. puzzled expressions, lack of attention, lateness).

NOTES:

WAYS TO IMPROVE LECTURING

Lecturing is a good way to give a lot of information in a relatively short period of time. It is particularly well suited for providing broad overviews and presenting the newest developments in a field. One should keep in mind, however, that lecturing does not allow students to develop concepts or problem-solving skills. If a teacher has a goal of having students learn these skills, class or group discussions may be more appropriate for at least some class sessions.

Since lecturing is basically one-way communication, there is often little exchange between lecturer and students. This can breed dissatisfaction for both parties. Some ways to introduce feedback are for the professor to be available before and/or after a lecture, allow time for questions and answers, hand out questionnaires, set up a student committee to serve as an advisory board on lectures, or ask someone to observe some class sessions. The emphasis of feedback should be on improvement, not criticism.

The lecture method can be very effective. The following points have been found helpful for achieving good lectures: (1) keep in mind the goals you have for the period and the content you want treated; (2) try to have about three major points, since this is the number people are likely to remember; (3) a certain amount of redundancy is necessary, but try to make a point in different ways; (4) include only the amount of material you think you can comfortably handle during the given time period.

We all want to give interesting, worthwhile lectures, which means we need to arouse student interest in them. Classrooms are often hot and stuffy. Airing the room before you speak can set a good environment for the lecture. There are some points about public speaking that we probably all learned in speech classes but have forgotten. They are a very important part of effective lecturing, so a brief review follows: (1) use a variety of pitch and volume. Taping a lecture is a good way to find out how your are doing with this. Practice makes a big difference; (2) look at your audience. They are more interested in what you say than are the blackboard or the windows. It also helps to keep students alert and interested if you look at them; (3) Try to avoid stereotyped behaviors, since they are disruptive to communication. You might have to ask students or a fellow faculty member about this one, as we often aren't aware of such mannerisms in ourselves; (4) be enthusiastic about the material in the lecture. If the topic doesn't have meaning for you, you might use a different class method that day, such as group discussion, or find someone else who is excited by the content and is willing to teach it. Another approach is to ask yourself if that lecture is really relevant to the course; (5) don't be afraid to laugh at yourself. Humor is a good way to create a warmer atmosphere and better relations.

If you have organized a student lecture committee, you can integrate some of their suggestions into your presentation. William J. McKeachie, in TEACHING TIPS: A GUIDEBOOK FOR THE BEGINNING COLLEGE TEACHER[12] has found that such committees often suggest the following techniques: (1) write a brief outline on the

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[12]Available in the "Teaching Aids" section of the Bookstore, in Morris Library, and Center for Teaching Effectiveness, 132 Newark Hall.

board during the lecture. You can also hand out a printed outline, but the students may pay more attention to an outline they copy; (2) summarize important points at the end of a lecture. This also could be done by means of a printed sheet prepared ahead of time; (3) break up lectures with panels, demonstrations, outside speakers, and movies; (4) break the class into rap sessions or task groups. Research has shown that a combination of lectures and discussions are more effective than straight lectures for producing comprehension and problem-solving skills.

NOTES:

WAYS TO BEGIN A LECTURE

1. State a question which will be answered (or at least be better understood) by the end of the lecture.

2. Pose a problem. The difference between this and stating a question is that a question is typically a single sentence, while in posing a problem one will be taking in a paragraph or two.

3. Give an example of the phenomenon to be discussed.

4. Tell a personal anecdote or one about a friend or famous colleague.

5. Create a demonstration which illustrates the topic, or puzzles the students.

6. Provide a review of some previously covered material, when directly related to and essential for understanding the current lecture.

7. Provide an overview of the lecture.

8. State the objectives to be accomplished with the lecture.

9. Tell a funny story or joke, if relevant to the material.

10. Give the lecture a title.

SOME TIPS FOR LECTURING

1. Unless you're really terrific, don't lecture uninterruptedly for more than 20 minutes.

2. Give each lecture a clear beginning. Vary the type of beginning used for lectures.

3. Don't lecture so well and completely that doing the reading becomes redundant.

4. Use the lecture to: emphasize, illustrate, make connections, put in broader context, indicate social importance, speculate, personalize.

5. Almost always, look at the class while lecturing. Try to look as many students as possible in the eye.

6. Leave space for questions and mental breathers.

7. Vary vocal tone, body posture, and position in the room.

DISCUSSION SECTIONS[13]

Discussions differ from lectures in many ways. A major difference is that the students can be more active and there can be more personal contact. Good discussion sections give students an opportunity to formulate principles in their own words and to suggest applications of these principles; they help students become aware of and define problems implied in readings or lectures; they can also increase students' sensitivity to other points of view and alternative explanations.

* Decide what kind of discussion is most useful for your class.
* Is there a certain topic to be discussed?
* Does the group have to reach a conclusion or come to an agreement?
* Is there subject matter that must be learned?
* Is the section a forum for expressing and comparing views?
* Is it important that the students carefully analyze the topic or that they learn certain skills?

Once you have decided what kind of discussion you want, tell the students. It is easier for everyone if the goals for the class have been clearly stated.

It is important to pay attention to the kinds of questions you ask and how you present them. Students will answer questions at the level you ask them. If you want a thoughtful response, you have to give the students enough time to think and answer. The three seconds it takes can seem like an eternity, but once the students begin to respond, the value of waiting becomes apparent.

YOUR NOTES:

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MANAGING DISCUSSIONS[14]

Every class, even the most "unstructured," has goals, structure, and patterns of some sort. The variations occur in how loose or tight the structure is, how explicit or subtle it is, and who establishes it. You have goals you wish to accomplish, and material from the course must be covered. At the same time, you will probably want to be open in some degree to new questions or issues, sensitive to what interests or puzzles the students. Some discussions go better when there is some rambling, while others need a tight structure. To handle this well, you need skills in guiding the discussions in varying degrees, in stimulating spontaneity when you want it and providing a clear track to follow when that is needed. Reducing the amount of structure is effective when you want students to learn how to select important ideas and to organize the material in a personally meaningful way. It is also best suited to more complex levels of thought, such as synthesis and evaluation. On the other hand, a closely structured class will cover more material, and this is useful when the information is straightforward and students need guidance in order to develop basic skills. Often there can be a progression during the course, with less structure and more student direction as their mastery and readiness to deal with complex ideas increase.

Setting structure should never be done in a way that blocks you from getting feedback about students' problems, and how they are reacting to the class. This can all too easily happen when the teacher sets the learning goals and students go along but feel oppressed and unable to voice their concerns. Setting aside periods of time for open discussion of priorities and problems, and other feed back devices such as mid-course questionnaires, can avoid this problem. "Control" is basically a two-way street, and if you and the students agree on what should be done, then everyone will be working in the same direction.

In the section below, we have listed a variety of specific tips and ideas. We suggest you select from among them the activities you find interesting and those which are likely to help you achieve the goals you have defined for yourself.

Planning the Class Together

1. Define learning goals--what you think students should know by the end of the course or a given meeting, concretely and clearly. Communicate these goals to students.

2. Elicit student's interests and difficulties at the start of the course and of each meeting, and work out a joint agenda. One way is to use the "Laundry List" technique.

3. Discuss with the class what kind of format or formats you are going to use. Pick one or several which they are comfortable with and which are compatible with class goals.

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When You Want to Focus On the Discussion

4. Set very specific learning goals and organize them in a clear sequence or agenda.

5. Ask plenty of "convergent" questions, e.g., ones which elicit a single correct answer or a clear-cut standard of correctness.

6. Emphasize frequently what you consider key points in the material.

7. If a comment or question is somewhat off the track, selectively respond to that aspect of it which most furthers the goals of the discussion.

8. When you must set aside a contribution or question as irrelevant, explain why in context of the discussion goals; when possible, indicate a time and place where you will deal with the point.

9. Periodically, and especially at the end of a meeting, summarize both your own points and the themes of the discussion, emphasizing the continuity with initial class goals.

10. Hold one-to-one exchanges with students (in class); avoid letting more than two or three students speak in a row without your commenting. This heightens your visibility as a model for how the discussion should proceed.

When You Want to Open Up a Broad Discussion

11. Ask lots of "divergent" questions, ones with many equally valid answers which can take the discussion in any one of several directions depending on how students react.

12. Ask students to make guesses or estimates in answering some questions. (This technique was suggested by a math professor, and is applicable even to "right/wrong" disciplines.) This encourages discussions aimed at validating the answers given and backing them up with reasoning.

13. Ask questions you expect will stimulate differences of opinion among students.

14. Define a broad theme around which to organize the discussion, a "ballpark" in which students can roam fairly freely.

15. Encourage student-to-student discussion, by explicitly asking them to react to each other's ideas or by keeping silent until students begin talking directly with each other. This reduces the tendency to look toward authority (you) for the stamp of approval or disapproval after each comment and thus will produce a freer exchange.

16. Use the "brainstorming" method in which you elicit a number of answers or ideas while suspending evaluative comments (either by yourself or by students) until a later point, in order to encourage the free flow of input.

17. Use a format involving division of the class to subgroups, in which each small group may take off in its own direction in dealing with the topic. Pool and compare the results later in the session.

18. Ask one or several students to sum up what struck them as the most significant points or ideas in the discussion.

NOTES:

USING WRITING TO IMPROVE DISCUSSION

Joanne Kurfiss
Center for Teaching Effectiveness

Writing fosters participation in class discussion.

Class discussion increases learning, fosters critical thinking, and develops positive attitudes toward the subject and the course. But the ideal of lively, informed discussion often eludes us. Many students prefer to take notes from a lecture or make themselves inconspicuous while a brave few answer our most stimulating and significant questions. Short writing assignments completed before, during, and after class discussion or lecture help to counter students' reluctance to participate.

The assignments suggested below involve writing that is a page or less in length. You do not need to grade them, but if you do, score them generously and focus on ideas rather than mechanics.

Before a class discussion to clarify concepts, ask students to write:
*a short summary of important reading material;
*an explanation, in their own words, of a key concept, graph, chart, or procedure;
*a metaphor or analogy that captures the meaning of a phenomenon, concept, or literary work for them;
*a diagram illustrating procedures or connections between facts or ideas;
*an important implication of the material.

In class, ask a few students to read aloud what they have written. Ask the class what they notice about the responses presented: What common features stand out about them? How do they differ from each other? Does anything seem to be omitted? Does anyone have a different response? Ask one question at a time, and allow the class plenty of time to respond.

To increase participation during a lecture, you can pause and ask students to write:
*a statement of what they still do not understand;
*predictions of the outcome of an experiment just described;
*answers to short open-ended questions on the lecture;
*questions they have about the lecture topic generally;
*their opinions on a controversial aspect of the topic, using material just covered as a support.

Ask for volunteers or call on students by name to read what they wrote, and encourage the other students to respond. Listen for misconceptions, unsupported opinions, intriguing predictions or questions that you can address in the remaining time or in a follow-up writing assignment.

After the presentation, students can write:
*solutions to a problem that requires application of new material;
*answers to open-ended questions about the topic;

*two or three possible exam questions on the topic;
*a comparison of two or more approaches to the topic;
*a discussion of the social significance of the topic;
*their thoughts on legal, ethical, or moral issues raised by the topic;
*a position statement on a controversial aspect of the topic, developed more fully with evidence from the presentation and readings.

In the next class session, students can discuss their responses in a small group exercise or class discussion with the purpose of fostering deeper understanding and critical thinking about the topic. Afterwards, you can collect students' papers and give them automatic credit for making a reasonable attempt.

By skimming over these short papers, you will learn a great deal about how well the students understand the subject and what concepts, topics, or issues you will want to explore further. You will know your students better, too. That knowledge will help you make future class discussions livelier and more productive. If you assign papers or give exams that use similar kinds of writing and thinking skills, you may also notice an improvement in students' performance on these tasks.

QUESTIONS ABOUT RUNNING LABORATORY SECTIONS[15]

What can I do to manage students during the lab?

Running a lab is different from a class; teaching in a lab is a one on one situation. TAs recommend that you learn the names of all your students; it will be easier to guide the class when you can call them by name.

What is the point of these lab sections?

The experiments should serve as links between theory and other experiments in the course. Make sure you understand and can explain how these fit into the concepts and theories of the course.

Is it important for students to produce expected results?

The emphasis on these labs should be on the explanation not on the results. Student experiments often fail to replicate the results found in the book. Discourage students from changing their findings in order to "match" those in their book. Emphasize the importance of the explanation for the results they do get.

What should I look for when I evaluate lab reports?

Many things can go wrong in an experiment: equipment may not work perfectly; students will make small errors. Encourage students to consider what went wrong (if it did) with the experiment and specify what things they checked during the experiment that could account for their results.

How should I prepare for the lab?

TAs recommend that you understand the experiment and are familiar with the equipment. Be able to anticipate problems that students could have with the equipment. You should have some ideas of what might go wrong to produce various outcomes.

TAs also recommend that you talk with other TAs who have taught that lab. Learn about the experiments from them. Find out what difficulties they had. If possible, try to do the lab with your professor first to become more familiar with it.

What else should I know before I run a lab?

TAs recommend that you identify problems with the equipment and find out who needs to be contacted if there is a malfunction. Find out if you should try to fix it yourself and whether you should try to fix it during the lab section. Find out if it is safe to fix it yourself and where the instructions are kept.

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[15] Compiled by doctoral candidates Vistasp Karbhari, Civil Engineering, and Julie Schmidt, Educational Studies, with the assistance of TAs in the College of Engineering, University of Delaware.

What about safety issues?

TAs have found that safety issues center on the use of the lab equipment itself. Make sure students do not mishandle or treat the equipment recklessly. Students need to learn that if they damage the equipment they could cause an accident: it is rare for accidents to occur when equipment is functioning properly. Mishandled equipment can create a dangerous risk for the next person using it. Safety for the students should be linked to safety for the equipment.

How can I get my students to prepare for the lab?

TAs recommend that you link the lab sections to real world problems. The experiments they do now will often be required of them in their future occupations. Require students to predict ahead of time what results they expect and why. Have them turn their predictions in prior to the lab section. Later, have students examine those predictions in light of their results: were their predictions upheld, if not, why not?

NOTES:

RUNNING LABORATORY SECTIONS[16]

Although labs are run differently by different departments and TAs' responsibilities vary there are some general guidelines to follow.

1. Be prepared! Make sure you have read the experiment before going to the lab and, if possible, actually conduct it. It is a good idea to reread the theoretical background so that you are prepared to answer questions.

2. If you are going to conduct any demonstrations, make sure you have checked your equipment before class.

3. Make sure you know where the supply storeroom is and where the first aid kits are located.

4. Observe all safety precautions.

5. In some lab sections, it is appropriate to go over homework questions or provide some background before students work on their own.

6. Try to return graded lab reports as soon as possible. Establish criteria for grading and explain them before students complete the lab exercise.

   Most importantly, the majority of college students will respect an instructor who is familiar with the experiment. The following suggestions are offered.

   a. Perform the entire experiment in advance--there is no guarantee it's going to work as advertised in the lab manual.

   b. Read and study the theory on which the experiment is based--otherwise, some student will hit you with a question you can't handle.

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USING QUESTIONS[17]

Developing Organized Thinking and Creativity

Organizing your thinking and presentations.

1. Define goals for yourself. (Organize your class material with this in mind.)

2. To begin each class session, put a brief "agenda" of goals or topics on the board. Invite students to comment on or add to the list.

3. Help students restate and articulate what they are expected to learn, via well-directed questions. If they have their own organized view of how the course is going, they will learn better.

4. Define key concepts at the start of a discussion or presentation to help students use them to organize the material to follow. Use these concepts as a focus of discussion and restate them at the end.

Questioning strategies for organizing ideas.

5. Vary the cognitive level of questions (see "Writing Exams and Quizzes") so that students get practice in thinking at different levels and for different purposes, and understand the relationships among them.

6. When presenting facts, ask inductive questions which lead students to synthesize and generalize.

7. Ask students to define concepts by examples, and try to find instances which relate to their own direct experiences.

8. Ask questions which encourage students to form hypotheses or explore "if-then" relationships.

9. Use probing and following questions which ask students to deepen their ideas, provide justifications for conclusions, or articulate assumptions.

10. Give reasons and explanations for your own conclusions to provide a model for students' thinking.

11. Ask deductive questions requiring implications or extensions of concepts and theories.

12. Ask questions involving comparisons and contrasts which require students to develop bridging concepts or dimensions.

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Questioning strategies for synthesis and creativity.

13. Keep your plan of discussion loose to make room for student interests.

14. Ask open-ended questions with multiple right answers or questions for which "rightness" is secondary (e.g., "How did you feel on reading _____?). This encourages spontaneity and reduces anxiety over being right or wrong.

15. Use "brainstorming," a technique which involves listing a number of ideas or answers before attempting any evaluation or selection. Evaluation is not abandoned, but rather postponed so as not to interfere with the flow of ideas.

16. Ask questions you are not sure how to answer. Allow yourself to be pleasantly surprised, rather than threatened, by a student idea that you don't know what to do with, or that sends the discussion in a novel direction.

17. Ask students to react to each other's ideas directly (especially when you aren't sure what to say!). This will add diversity and reduce the tendency to look to the instructor for the "right" solution. Encourage constructive conflict and differences of opinion.

18. Bring up a familiar concept or topic in an unexpected context: How would world politics change if energy supplies were unlimited? What would happen in a confrontation between Hitler and Cleopatra? How would a turbine blade feel if revved to fast? (This approach has been used successfully by a group called Synectics to solve very hardheaded engineering problems.)

19. Encourage students to guess at ideas or answers and then check their guesses: This will get them involved in seeking the results and help them learn to make intuitive, "educated guesses."

20. Ask questions by analogy, simile, or other indirect comparison. Stimulate new concepts by asking for comparisons among apparently unrelated elements.

21. Encourage students to use their own reactions (feelings, perceptions, values) as starting points for exploration of a topic.

Helping students organize their own learning.

22. When completing a topic area, ask a student to summarize the main points for the class.

23. Point at, and help students define, habitual errors or blind spots they have in attacking questions or problems of a certain sort.

24. Start a discussion about how well the learning goals of the class are being accomplished.

25. In helping students master a specific problem, also help them generalize so that they can apply similar methods to future problems of the same type.

26. Explicitly discuss with the class criteria for valid or invalid conclusions, and encourage them to formulate such criteria for themselves so that they can evaluate their own and others' thinking.

NOTES:

STIMULATING PARTICIPATION[18]

1. Learn to really wait after a question. All too often teachers cut off a lot of valuable activity by getting anxious and moving on too quickly. Waiting is a signal that you really do want participation, gives students time to digest the question, ensures that most students will be thinking during the pause, and provides more openings for the slow to respond.

2. Ask plenty of questions that are pitched at the level most of the class can handle. Success is a powerful encouragement to future participation.

3. Vary the intellectual approach of your questions to provide opportunities for different types of students: include some information questions, some requiring deductions, some asking for hunches or intuitive leaps, and so on.

4. Encourage students, by your questions, to use their own reactions and experience as starting points for discussion. This includes their feelings, perceptions, values, and life experiences.

5. Ask open-ended "divergent" questions--ones with many equally valid answers. This will reduce anxiety over being wrong.

6. Use the "brainstorming" method in which you entertain a number of responses to a question, writing them on the board, before evaluating or moving on. This makes differences among people more acceptable and reduces the worry over being judged which often inhibits participation.

7. Set aside certain times in class when you deal only with basic questions, to smoke out those who may be afraid to ask them. Label this in a way that will save face for students (e.g., by designating it a "review").

8. When you are having trouble explaining an idea, open it up to the class, and ask if anyone else can clarify. Be a model for honesty about your own puzzlements.

9. Following a student contribution, ask if anyone else wants to comment or build on the idea. Break the habit if expecting a statement from you after every student input.

10. At the end of a topic or meeting, invite a student to summarize the discussion, or recap a problem solution.

11. Be hospitable to student questions or comments that surprise you. These may be signs that you haven't understood their concerns, and they may have a novel perspective on the issue.

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12. Be clear and positive in rewarding all participation. Students will watch what happens to others who speak up, and this expectation affects participation enormously. When you must be critical, do it in a way that doesn't alienate.

NOTES:

REWARDING STUDENT CONTRIBUTIONS AND PROVIDING FEEDBACK[19]

1. Talk directly to the person and respond explicitly to him or her. Make eye contact and use his or her name if possible.

2. Learn to listen carefully and show it. Look attentive, and test your understanding when necessary by a followup question, by paraphrasing what the student has said, or checking on an implication of his or her meaning.

3. Restate complex or inaudible contributions for the whole class, or ask the student to do this.

4. Point out specifically what you thought was valuable in the contribution--don't be content with a vague "good" or "OK" unless the point was very minor or obvious.

5. If you see potential in the comment, draw the student out by asking him or her to elaborate, apply or relate the point in new ways.

6. Build on or incorporate the student's point in a later point of yours, so that the intellectual work of the class becomes a mixture of many people's ideas.

7. Relate the student's point to material being discussed in class.

8. Invite other students to add their reactions or reflections to build further on the original point.

9. Comment on the thinking process a student has used, as well as his or her conclusions.

10. If a student comment is unclear or confused, help the student find out and express what he or she really was trying to say--show that you care about the original intent.

11. Use non-verbal messages--body posture, facial expressions--to reward students for the act of participating (regardless of what you have to say about the substance).

12. Talk to the person. By showing interest, you can reward the act of participation while indicating that a particular contribution is incorrect. Make eye contact (which we often avoid due to discomfort just when it is needed most!).

13. Be sensitive to students' pride and fears. In putting forward an idea, a student (and probably you, too) puts his or her self-esteem on the line as well.

14. Be especially alert to avoid any tone of condescension or put-down; a student

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who is working on an idea, however elementary or naive, deserves respect and you will find that this encourages others to take risks too.

15. Recognize the reality of a high-pressure competitive campus; students have to worry about grades whether they want to or not. Medical school or graduate school admission can sometimes hang on a few GPA points. Keep this in mind when you have something negative to say.

16. Leave your ego in your briefcase. Looking good at students' expense is the surest way to create a tense, anxious climate which inhibits participation.

17. Be clear, in you own mind, and in your statements, as to the difference between what is incorrect and what you as an individual disagree with. Never use the former to enforce the latter.

18. Admit it when you don't know something. Be a model for students by thinking out loud when you're puzzled.

19. Anytime you aren't completely clear about what a student means, ask a question to clarify. The student may be making a different point than you thought, or be right for reasons you had not thought of.

20. When you disagree or correct a student, restate or paraphrase the point he or she made. This tests your understanding, and also conveys that you take the point seriously.

NOTES:

DEMONSTRATIONS

Demonstrations are valuable tools for teaching both techniques (skills) and concepts (principles). The former teaches how to do something and the latter why something works the way it does. Following are guidelines for both types of demonstrations. Many parts of the material are repetitive; choose the type you are interested in presenting to your class for the guidelines which will lend themselves best to your purpose.

SAMPLE TECHNIQUES

Teaching/showing undergraduate students how to:

Thread a loom.
Solder jewelry.
Braise metal.
Achieve accurate registration of serigraphic stencils.
Improve prints from poor negatives.
Make paper.
Use a computer program.
Cut a pattern.
Drape fabric.
Set and serve a banquet.
Draw blood for analysis.
Perform a surgical technique.

SAMPLE CONCEPTS AND PRINCIPLES

Natural balance
Optimal wildlife (or plant) population
Point of diminishing returns
Selective breeding
Balanced diet
Least cost diet
Budget
Debit and credit
Supply and demand
Margin of profit
Mark-up
Interest
Overhead
Depreciation
Viscosity
Mechanical advantage
Boyle's law
Hooke's law
Ohm's law
Conductivity of heat
Color balancing
Proper fit
Posture
Reproduction
Human traits

DEMONSTRATION SESSIONS (Techniques) [20]

1. Factors to consider when PLANNING a demonstration lesson:

   a. Outline the demonstration in writing.
   b. Identify, locate and organize your props.
   c. Arrange the physical setting.
   d. Rehearse the demonstration.
   e. Determine methods of student practice and evaluation of specific skills.

2. Elements in establishing the "Instructional Set":

   a. Ensure that students have requisite knowledge.
   b. Establish the mood, climate, tone.
   c. Arouse interest.
   d. State the objectives.

3. Points involved in PRESENTING a demonstration lesson:

   a. Present safety factors early and often.
   b. Explain each step.
   c. Don't lose your audience.
   d. Avoid long pauses in your explanation.
   e. Speak to the students.
   f. Position equipment and yourself properly.
   g. Emphasize difficult steps.

4. Elements to be considered in CONCLUDING a demonstration lesson:

   a. Summarize.
   b. Provide students with a sense that they can accomplish the demonstrated task.
   c. Introduce no new material.
   d. Answer all student questions.
   e. Summarize the lesson.

5. Methods for supervising STUDENT PRACTICE:

   a. Controlled practice.
   b. Independent practice
   c. Coach and pupil practice.

6. Methods for EVALUATING your demonstration lesson:

   a. Oral questioning.
   b. Written tests.
   c. Performance evaluations, watching process in action.
   d. Critiques and juries, judgments of the finished piece/product.
   e. Combinations of a-d.

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[20]Adapted by Susan Pitcher from Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

PLANNING THE DEMONSTRATION (Technique) [21]

A plan for an effective demonstration for technique should include these steps:

* Determine the technique and specific example of the technique you wish to demonstrate.

* List the steps to be followed during the demonstration, in their correct order. You may know several good ways to achieve a particular end. Try to include some variations if their inclusion is not confusing or would not give not give rise to safety problems.

* List the key points to be emphasized during the demonstration.

* List all materials and equipment needed for the demonstration

* List any visual aids, such as transparencies, drawings, etc. you may need.

* Plan how to introduce the demonstration. The introduction should relate the technique to the students previous experience or knowledge; arouse interest; give background information; define new terms.

Once plans are complete, you will need to make the preparations for the demonstration. The following steps should be completed.

* Prepare the visual aids listed in your plan.

* Assemble all necessary materials and equipment.

* Prepare the physical setting in which you will conduct the demonstration so that each student will be able to see and hear comfortably. (If the technique is very fine, you may have to repeat it several times as only a few students will be able to get an adequate view at any one time.)

* Practice or rehearse the presentation.

When you conduct the demonstration, you should perform the steps, giving a simple explanation for each step as you proceed. Observe students throughout to make sure your pace isn't too fast or too slow. Then, summarize the demonstration, or let students summarize it. This can be done either as you proceed through it or immediately afterwards.

After your demonstration, you need to conduct certain follow-up activities. First, review key points with the class. If a significant number of students missed or misunderstood any key points, you may need to repeat the demonstration. Then, have students apply the technique in their own work so that they can consolidate learning and gain the technique.

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[21]Adapted by Susan Pitcher from Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

SAMPLE

DEMONSTRATION PLAN SHEET (Technique) [22]

TECHNIQUE TO BE DEMONSTRATED: _____

_____

_____

INTRODUCTION METHOD: _____

_____

_____

TERMS:

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

MATERIALS NEEDED:

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

STEPS TO BE FOLLOWED:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

_____

[22]Adapted by Susan Pitcher from Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

NOTES:

DEMONSTRATION CHECKLIST (Technique) [23]

To improve your own performance, it is often helpful to ask a fellow TA to observe you during a demonstration, or at least the demonstration rehearsal, using the following checklist as a guide.

In a successful demonstration the teacher will have:

1. selected an example which can be easily demonstrated
2. set up the demonstration where it could be easily viewed by each student.
3. related the technique to previous experience or knowledge.
4. defined terms and given necessary background information.
5. had all materials and equipment ready for use.
6. performed the steps of the demonstration in a logical order.
7. observed the students to see that they were following the demonstration.
8. summarized the key points during the demonstration or at the conclusion of the demonstration.
9. determined students' comprehension of the technique by some form of feedback.
10. used visual aids to illustrate any steps which were difficult to observe.
11. provided opportunity for students to practice the technique reasonably soon.

Note: When a demonstration has been completed by the teacher, it is often helpful to other students to watch the teacher coach a student through the technique. The teacher's facility with equipment often hides difficulties which are easily demonstrated in unfamiliar hands. (Remember to ask for a volunteer for this exercise and to be patient and supportive through the process.)

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[23]Adapted by Susan Pitcher from Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

DEMONSTRATION SESSIONS (Concepts)[24]

1. Factors to consider when PLANNING a demonstration lesson:

   a. Establish a record-keeping procedure
   b. Outline the demonstration in writing.
   c. Identify, locate and organize your props.
   d. Arrange the physical setting.
   e. Rehearse the demonstration.
   f. Determine methods of student practice and evaluation of specific skills.

2. Elements in establishing the "Instructional Set":

   a. Ensure that students have requisite knowledge.
   b. Establish the mood, climate, tone.
   c. Arouse interest.
   d. State the objectives.

3. Points involved in PRESENTING a demonstration lesson:

   a. Present safety factors early and often.
   b. Explain each step.
   c. Don't lose your audience.
   d. Avoid long pauses in your explanation.
   e. Speak to the students.
   f. Position equipment and yourself properly.
   g. Emphasize difficult steps.

4. Elements to be considered in CONCLUDING a demonstration lesson:

   a. Summarize.
   b. Provide students with a sense of accomplishment.
   c. Introduce no new material.
   d. Answer all student questions.
   e. Round out the lesson.

5. Methods for supervising STUDENT PRACTICE:

   a. Controlled practice.
   b. Independent practice
   c. Coach and pupil practice.

6. Methods for EVALUATING your demonstration lesson:

   a. Oral questioning.
   b. Written tests.
   c. Performance evaluations.
   d. Combinations of a-c.

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[24]Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

PLANNING DEMONSTRATION SESSIONS (Concepts) [25]

If a demonstration is appropriate, advance planning is essential. Planning should include the following steps:

* Summarize the concept or principle to be demonstrated in a few words. If you have difficulty doing this, it may be because you do not have a clear understanding of the concept yourself. Reading about the concept or talking your ideas over with peers may help increase your own understanding of the concept.

* Determine a specific example of the concept or principle which can be easily demonstrated. Remember, every concept or principle has a referent; however, if you cannot think of a good example, perhaps a demonstration is not the best way to teach the concept or principle.

* List the steps to be followed during the demonstration, in their correct order.

* List the key points to be emphasized during the demonstration.

* List all materials and equipment needed for the demonstration

* List any visual aids, such as graphs, transparencies, drawings, computer driven aids, models, etc., which you feel might be needed to present the concept or principle.

* Plan how to introduce the demonstration; the introduction should (1) relate the new concept or principle to the students' previous knowledge or experience, (2) arouse curiosity, (3) give background information, and (4) define new terms.

Once your plans are complete, you will need to make the preparations for the demonstration. The following steps should be completed.

* Prepare the teaching aids listed in your plans.

* Assemble all necessary materials and equipment.

* Prepare the physical setting in which you will conduct the demonstration so that each student will be able to see and hear comfortably.

* Practice or rehearse the presentation.

When you conduct the demonstration, you should perform the steps, giving a simple explanation for each step as you proceed. Observe students throughout to make sure your pace isn't too fast or too slow. Then, summarize the demonstration, or let students summarize it. This can be done either as you proceed through it or immediately afterwards. After your demonstration, you need to conduct certain follow-up activities. First, review key points with the class, if a significant number of students missed or misunderstood any key points, you may need to

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[25]Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

repeat the demonstration. Then, have students apply the concept or principle in a new situation so they can generalize their learning.

NOTES:

SAMPLE

DEMONSTRATION PLAN SHEET [26]

CONCEPT/PRINCIPLE TO BE DEMONSTRATED: _____

_____

_____

SUMMARY OF CONCEPT/PRINCIPLE _____

_____

_____

INTRODUCTION METHOD: _____

_____

TERMS:

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

MATERIALS NEEDED:

1. _____ 2. _____ 3. _____

4. _____ 5. _____ 6. _____

7. _____ 8. _____ 9. _____

STEPS TO BE FOLLOWED:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

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[26]Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, The Ohio State University, Module 17. Professional Teacher Education Module Series. Athens, Ga: AAVIM 1977.

NOTES:

DEMONSTRATION CHECKLIST (Concepts) [27]

In a successful demonstration the teacher will have:

1. selected an example of the concept which can be easily demonstrated
2. set up the demonstration where it could be easily viewed by each student.
3. related the new concept to students' previous experience or knowledge.
4. defined terms and given necessary background information.
5. had all materials and equipment ready for use.
6. performed the steps of the demonstration in a logical order.
7. observed the students to see that they were following the demonstration.
8. summarized the key points during the demonstration or at the conclusion of the demonstration.
9. determined students' comprehension of the technique by some form of feedback.
10. used visual aids to illustrate any steps which were difficult to observe.
11. had students analyze a new situation in relation to the concept.

Note: To improve your own performance, it is often helpful to ask a fellow TA to observe you during a demonstration, or at least the demonstration rehearsal, using the above checklist as a guide.

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[27]Hamilton, J.B., et al. "Demonstrate a Concept or Principle." The Center for Vocational Education, Module 17 . Professional Teacher Education Module Series. The Ohio State University. AAVIM, Athens, GA: 1977.

TESTING AND GRADING[28]

Test Construction

Tests let both you and your students know how much they have learned and provide a chance for more learning to take place. Tests should be designed with primary course objectives in mind; they should cover what has gone on in discussion sections (usually) and lectures. Before making up an exam, go over the kinds of information and skills emphasized in the course. Was the memorization of facts or the application of principles more important? The exam should be constructed accordingly. Students should be told in advance, preferably at the beginning of the semester, what kinds of exams will be given in a course. Since some students may have access to old exams, if the course is a long-running one, it is fairer to give all students sample copies of at least one previous exam. If you are new to the course, you will also want to go over the old tests carefully and see both what was covered and how.

Frequent testing can enhance learning as well as provide information on student progress. For maximum learning from one exam--and out of respect for the students--tests should be returned as soon as possible. Unless you intend to discuss them in class, you should hand tests back at the end of a period in order to avoid students' being preoccupied by them while you try to cover something else.

Explicit directions and clearly stated questions are two key ingredients in a good exam. No matter how clearly you write these beforehand, however, you should still go over them with the students at the beginning of the actual test. If a student comes up and asks you privately about a question that looks as though it could be confusing to others, share your answer with the whole class. The placement of questions and answer spaces, or choices, on a page also needs consideration. If all the questions and answer slots are single spaced on both sides of one page, the visual impact of the exam may confuse the students. If you leave enough space for short answers, on the other hand, realize that the amount of space you leave is often interpreted by students as the length of the answer you want.

Answers to exam questions need to be determined before the first exam is corrected and preferably before the exam is given. The amount of credit each question will carry should also be determined in advance, and students should know that amount before the exam begins. Tests should be reasonably difficult but not tricky.

After constructing an exam, classify the questions according to what they require of the students: information recall, translation, interpretation, application of principles, analysis of concepts, synthesis of ideas, or evaluation. Small changes in questions can often require a higher level of thought from the student and agree more with the emphasis in the course.

Short answer questions help test information recall and analytic skills. Essay tests give students a chance to organize, evaluate, and think, and therefore have the best educational value although they are the hardest to grade. Multiple-choice exams are the most difficult to construct but can measure both information recall and concept application. Numerical or logical problems test understanding of material and the ability to apply it. Completion questions test for recognition of

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[28]Reprinted with permission from: Fisher, M. (Ed.). TEACHING AT STANFORD: AN INTRODUCTORY HANDBOOK, Revised Edition, 1983, pp. 17-20. copyrighted 1983 by Board of Trustees of the Leland Stanford Junior University.

key terms and concepts. But if you use completion questions, be willing to accept reasonable alternative answers that you had not considered prior to giving the exam. Matching questions are useful for testing recognition of the relationships between pairs of words or between words and definitions. Be sure to give enough answers so that students cannot guess simply by the process of elimination.

In recent years, take-home essay exams have grown in popularity. Although they may seem an ideal format, by providing students with a calmer environment and more time in which to think through answers, they do have drawbacks which some precautions can minimize. Word or time limits should be put on the exams, for example, so that students with other tests do not have to compete unfairly against students with no other demands on their time. There should also be explicit instructions on whether or not students can talk to each other about their answers and whether they have unlimited access to materials. An alternative strategy is to give out the exam in advance and allow consultation among students, but have them write the test in class without notes. Essay exams should be designed primarily to be learning experiences, not exercises in information recall. Because they are difficult to evaluate, you should discuss the criteria for their evaluation with the students and with any fellow graders before the test is given.

Math and science exams generally consist of problems to be solved. Here are some guidelines for constructing these problems:

* Construct the problems so that they resemble the ones given in the exercises during the semester.

* Make the problems as interesting as possible. This can be done by making them seem to have a "real" application or by combining two single concepts. The latter method gives a more interesting (but more difficult) problem than straightforward applications of one idea.

* Always take the exam first yourself. Problems which seem fairly easy to you will seem hard to many students. You should be able to finish the exam in no more than a quarter of the time the students will have.

* Avoid long, detailed computations. Concentrate on ideas, not endurance.

After constructing any kind of exam, ask an experienced peer or the professor, if you are working with one, to look it over. Someone else can often point out ambiguities that the test writer does not see. After the exam is given, place a copy of it in your files along with a note to yourself, indicating whether any parts unnecessarily confused the students or brought responses that you hadn't really meant to be testing for.

Grading

Grading is a major problem to many new teachers. Some are quite harsh at the beginning to prove that they are not pushovers. Others, who may know their students personally, are quite lenient. Grades reflect personal philosophy and human psychology as well as efforts to measure intellectual progress with standardized objective criteria. Whatever your personal philosophy about grades, their importance to your students means that you must make a constant effort to be fair and reasonable and to maintain grading standards you can defend if challenged. Grades cause a lot of distress for undergraduates; this concern often seems to inhibit an enthusiasm for learning for its own sake ("Do we have to know this for the exam?"), but grades are a fact of life. They need not be counterproductive

educationally if students know what to expect. Grades are basically feedback on students' performance.

a. General Hints

Here are some general suggestions that can help to maintain fairness and consistency in your grading.

* Planning and Explaining

Make a plan for evaluating the students and stick to it. Evaluation procedures should be decided on when the course is in the planning stages. If you are working with a professor, meet with him or her and decide how many and what kinds of evaluation methods are to be used. Then decide how the students' work should be graded and what proportion of the final mark each assignment, quiz, etc., will comprise. This is also the time to set out a policy for missed or failed midterms and late assignments. Once all of these things have been set out explicitly, take the earliest opportunity to make the students aware of these policies. Tell the class what you expect from them and how you plan to measure their progress in achieving the goals of the course. Explain these goals and how you feel the evaluations, marking procedures, and policies will help both to achieve these goals and allow you to fairly evaluate their progress. Good planning and clear explanations will prevent student confusion--and possibly anger--later on.

* Records and Distributions

Keep accurate records of your evaluation of each student's performance throughout the quarter. (You should also keep your records around for several years since students may come back later to question a grade, finish an incomplete, or ask you to write a recommendation.) Such records will make it easy for you to justify and/or re-evaluate a student's final grade if necessary. This record is, of course, extremely important if you decide to base the final grade on some composite of the semester's work.

If you are evaluating a reasonable number of students, say 20, it is also a good idea to make a graph of the distribution of grades on each quiz or assignment. If, for instance, you are giving a numerical grade from 0 to 50 on an assignment, you can plot a graph of how many students received a grade between 1 and 10, 11 and 20, all the way to 50. This graph will tell you at a glance (and anyone you choose to show it to) how the students are doing. It will also allow you to see what the most frequent scores are and where the middle of the scoring range is. Both these statistics are informative for the students who are concerned about how they are doing with respect to the rest of the class. Distributions will make it easier for you to see how good your evaluation method was. Uneven or badly skewed distributions suggest a poor testing method.

If you plot similar distributions for a number of assignments or quizzes, you will be able to see how consistent your marking has been and also if there is (hopefully) a trend toward improvement in the students' performances. Composite grades can also be plotted this way, making the assignment of a final letter grade an easier task. For example, if your distribution plot indicates that all the scores are bunched together, you may want to consider shifting or narrowing the range of your letter grade assignments. If the

professor chooses to assign the final grades, he or she may also find plots of the distribution of final scores helpful. In either case, attach copies of the distributions to exams for your future reference and for the use of future teachers in the course.

b. Some Specific Hints

Of course, the grading problems you face will depend on the evaluation method you are using. Here are some specific hints for different types of evaluation.

* Papers

There is nothing more arbitrary to a student than a paper passed back with just a grade on it and either no comments or just perfunctory ones. When grading papers, write comments judiciously and legibly. Do not obliterate the text--use the back or append a note. Try to say enough so that the student has a reasonably good chance of doing better next time. If you find that you are saying similar things to several students, prepare a handout on whatever the students are stumbling over--how to write a review, for example, or how to develop an argument.

A paper should be judged on its content, organization, and presentation. Often it is useful to the student if you evaluate the paper in each of these areas and assign a mark on the basis of some combination of these factors. Also, some teachers have had good success with asking students to write papers twice. The first draft is submitted and subjected to constructive criticism on both content and style. The second draft is graded and usually shows the kind of improvement that is quite satisfying to student and teacher alike.

Both papers and essay exams involve a lot of subjective judgment. The following suggestions may help with the problem of maintaining consistency. You are more likely to be stringent with the first few papers you read than with the rest and less likely to be careful about comments and such when you are tired. To avoid such problems, try to read a few papers before you actually start grading to get an idea of the range of quality, and stop grading when you get tired or start to undergo personality changes due to boredom. When you start again, read over the last couple of papers you graded to make sure you were fair.

* Essay Exams

Usually the problem here is how to wade through all those booklets while remaining both consistent and sane. When there are a number of teachers assigned to a course, this is easier, because you can divide the work load...but how to divide it?

If each teacher has had a section and all of you have covered the same basic material, then you may prefer to mark the entire exams of just the students in your own section. (The problem here, of course, is that objectivity may be harder to achieve since you may feel close to, or even partial toward, your own students. Grading question-by-question rather than student-by-student may help.) This will allow you to give credit for material that you presented in section and it will give you feedback on whether the ideas you have emphasized have actually registered. At the same time, you

should be guided by a grading standard that has been mutually agreed upon by all teachers and the professor.

If each teacher has dealt with specialized topics in lecture and section, then it is probably better to split the exam questions up so that each teacher covers the area he or she taught. Splitting the exam questions up this way ensures that each question will be marked consistently across all students. However, reading 200 answers to the same question one after the other has its drawbacks; it can affect your mental health and your grading range. This is less likely to occur if you pace yourself, mark questions that you are interested in, and switch questions every once in a while.

When the exams have been marked, get together with the other teachers and discuss and resolve any problems you have encountered. Then add up the total scores, check your addition (saves a lot of trouble later), and plot the distribution. Now you are ready to present the results to the professor or to assign the grades yourself.

* Problem Sets, Short Answer Questions, and Multiple Choice

Although these evaluation methods usually take longer to make up than the others, they are easier to grade. But problems can still arise. For the same reasons as those mentioned above, it is often a good idea to divide the exam questions among the teachers. This is more likely to maintain consistency and to make it possible for you to spot consistent deviations. You may think that you have written the perfect question with only one correct answer, but you must always be prepared for alternative answers. In the case of multiple choice questions, for example, if students are doing worse than chance on a particular question, it is likely that the question was poorly worded. In this case you must either give credit for more than one answer or toss the question out (by giving everyone credit).

Grading can be a constructive process for both you and your students. It can give them the opportunity to improve their knowledge and writing skills and it can give you feedback on your teaching and evaluation methods. By being consistent and fair, you can minimize the inevitably unpleasant aspects of passing judgment on someone's efforts.

NOTES:

WRITING EXAMS OR QUIZZES[29]

Many TAs are called upon to make up examinations and quizzes or to submit questions for them. First you must decide what facts, definitions, generalizations, and values are absolutely essential to the unit you are teaching. To this list, add the important intellectual skills you want your students to acquire. Then consider the constraints on the exam format and schedule: will it be in-class, take-home, open- or closed-book, multiple choice, short answer or essay; will it be for a single midterm, two midterms, a series of quizzes or a final? Students feel a compelling need, sometimes from the first day of class, for this information and for knowing the relative value of each exam.

Write your questions, keeping in mind that serious learning involves the following categories of thought (taken from Norris Sanders' Classroom Questions, What Kinds?):

* memory (recall or recognition of information)
* translation (deciphering symbols or technical language)
* interpretation (discovery of relationships among facts, generalizations, definitions, values and skills)
* application (identifying issues in lifelike problems and selecting the proper generalizations for solving them)
* analysis (breaking down a problem with conscious use of defined forms of thinking)
* synthesis (solving problems by creative thinking)
* evaluation (judging right from wrong according to standards)

After you have written your questions, examine them and classify them according to the categories of thought involved in answering them. You may find that most of them simply involve memory and that with a few small changes you can produce questions which require a higher level of thought.

Examinations usually produce a high degree of anxiety for students. You can help minimize this by establishing a policy regarding exams and grading and by stating it explicitly. Determine whether or not you will offer review sessions, if makeup exams will be possible, if questions will be answered during the exam; and, if you can schedule in advance, tell them when the grades will be posted or when the corrected exams will be returned.

A helpful reference is Norris Sanders' Classroom Questions, What Kinds?, Harper and Row, New York. It comes in paperback, is easy to read, and will give you excellent suggestions. A copy is available in Morris Library. and the Center for Teaching Effectiveness, 132 Newark Hall.

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[29]Adapted with permission from: Unruh, D. (Ed.). THE TA AT UCLA: 1984-85 HANDBOOK, and Andrews, J. TEACHING ASSISTANCE: A HANDBOOK OF TEACHING IDEAS. TA Development Program University of California-San Diego, 1982. Copyrights held by Regents of the University of California.

The system that follows, developed by Benjamin Bloom, is one of the most widely used and is based on the notion of a hierarchy of thought processes. Each category requires more complex thinking than the one preceding it, and also builds on or incorporates the preceding types of thought. That is, one needs the capacity for "lower" levels of thought in order to proceed to the "higher" levels. This in itself suggests a teaching strategy: In the early stages of a topic, there should be more emphasis on lower, more basic thinking processes; as this is mastered, students will be able to move up the hierarchy toward more complex ways of dealing with the material.

Descriptions of the Major Categories in the Cognitive Domain

Category	Sample Performance Statements
1. Memorization. Memorization is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Memorization represents the lowest level of learning outcomes in the cognitive domain.	a) States names of 4 European rulers during World War I. b) Describes how to titrate. c) Defines deviance.
2. Comprehension. Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding.	a) Summarizes Plato's views on good and evil. b) Describes the composition of the nucleus of an isotope from its position in the periodic table. c) Restates the concept of the superego in his or her own words.
3. Application. Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension.	a) Calculates the volume of a sample of gas under any conditions. b) Writes a coherent paragraph, as given by the basic rules, to express his or her idea. c) On the basis of a description, classifies a society as embodying organic or mechanical solidarity.

4. Analysis. Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material.

   a) Identifies the ions in an unknown using a chemical qualitative analysis scheme.

   b) Identifies the key themes in a short story, and shows how they are interrelated in producing the outcome.

   c) Identifies several central values in a nonwestern cultural system, and shows how they are expressed in economic and religious activities.

5. Synthesis. Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures.

   a) Devises a scheme for the synthesis of an organic compound from a given starting material.

   b) Working from original documents constructs an account of how European intervention affected the Civil War.

   c) Designs an experiment for establishing in what ways certain members of an ecological system are dependent on one another.

6. Evaluation. Critical evaluation is concerned with the ability to judge the value of material (a statement, novel poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose) and the student may determine the criteria or be given them. Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all the other categories, plus conscious value judgments based on clearly defined criteria.

   a) Chooses the most efficient scheme of synthesis for an organic compound from among several schemes.

   b) Evaluates the quality of several poems on the basis on internal structure and harmony of imagery.

   c) Compares the adequacy of 3 theories of personality in explaining a specified type of behavior.

NOTES:

TESTING YOURSELF - STUDENT FEEDBACK

If you want to know how <u>you</u> are doing with your students, take a few minutes at the end of a class, after the third week and perhaps again at mid-semester, to have them fill out the following feedback form. It is best if you leave the room. Ask one of the students to collect the feedback sheets and return them to your office in a provided envelope. Make sure you stress to your students that their comments will have no bearing on their grades, that you want to find out how you can best meet their learning needs.

1. How satisfied are you with the class (discussion section/lab section) so far this semester? (Circle one.)

1	2	3	4	5
Very Dissatisfied				Very Satisfied

2. What do you like most about this class (section/lab)?

3. What do you like least about this class (section/lab)?

4. What could be changed to make this class (section/lab) better for you?

5. What could you do for yourself to make this class (section/lab) better for you?

6. Other comments.

POLICY ON ACADEMIC DISHONESTY

The University takes the position that the best way to handle cheating is first to attempt to prevent it and second, if it occurs, to deal with it swiftly and decisively.

Plagiarism is the most prevalent form of cheating on campus, and it is also the hardest to prevent. Plagiarism in a term paper or other written assignment cannot be proven unless the original source is found. An instructor who suspects that a student has plagiarized a source should compare the questionable material with other samples of the student's writing, if possible. Instructors should always feel free to contact any student they suspect of plagiarism and inquire about the student's use of sources and methodology. Some students cannot distinguish between paraphrasing and plagiarism, and many do not understand the implications of cheating and plagiarism. Teachers can refer students who need to improve their writing skills to the Writing Center which specializes in such assistance.

Students of the University are expected to be honest and forthright in their academic endeavors. To falsify the results of one's research, to steal the words or ideas of another, or to cheat on an examination corrupts the essential process by which knowledge is advanced.

It is the official policy of the University of Delaware that all acts of alleged academic dishonesty be reported to the Office of the Dean of Students for disposition within the University Undergraduate Student Judicial System or to the University Coordinator of Graduate Studies for disposition within the University Graduate Student Judicial System. It is contrary to University policy for an instructor to assign a disciplinary grade such as an "F" or zero to an assignment, test, examination or other course work as a sanction for admitted or suspected academic dishonesty in lieu of formally charging the student with academic dishonesty under the University's Code of Conduct. Such an independent action violates the student's guaranteed legal right to due process and leaves the instructor vulnerable to a student grievance, an off-campus civil suit and possible disciplinary action by the University.

Similarly, students are prohibited from proposing and/or entering into an arrangement with an instructor to receive a grade of "F" or any reduced grade in a course or on an academic exercise in lieu of being charged with academic dishonesty under the Code of Conduct.

Prevention of Cheating on Exams

Academic honesty should not only be encouraged, but insisted upon by faculty and students who value quality in teaching and learning. Prevention of dishonesty is one of the basic responsibilities of the University professor. Singhal and Johnson (1983)[30] suggest the following steps in preventing academic dishonesty:

1. At the beginning of the semester, clearly define the level of student interaction acceptable for work done out of class and submitted for grading.

2. Define plagiarism.

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[30]Singhal, A.C. and Johnson, P. "How to Halt Student Dishonesty," College Student Journal, 1983, 17, 13-19.

3. Ensure equal access to study materials such as old homework solutions, exam papers, etc.

4. Reduce the portion of the final grade (less than 10%) which is assigned to take home exams, lab reports, and homework assignments.

5. Carefully define course and exam requirements. (Unreasonably difficult and unrealistic demands, as well as trite, uninteresting activities invite cheating.)

6. Develop exams which are realistic and fair with respect to the material taught. (Requiring memorization of a large number of dates, locations, and formulas may be resented).

7. Construct the testing situation so as to make copying and other forms of cheating difficult:

    a. Keep exams secured.

    b. Be sure of integrity of others involved in test reproduction.

    c. Dispose of test waste materials carefully.

8. Specific recommendations for the testing situation:

    a. Spread students out when possible. For crowded classrooms, use two or more different exam forms on two or more different colors of paper.

    b. Proctor exams closely--both instructors and TAs should be present. Have outside materials placed at front of room, check for desk etchings. Assign seats alphabetically. Require photo ID for entry and to be left on corner of desk during exam to avoid one student taking exam for another.

    c. Student talking, asking of questions after the exam has started, and borrowing of calculators among students should be prohibited.

    d. Exam papers may be left at seats, turned over to cover responses. After students leave the room, faculty and/or TAs pick up exams in sequence by rows, preventing paper switching and a record of "neighbors." Evidence of copying can be more easily obtained by scoring one question at a time.

    e. Answer sheets and scratch paper may be bound together prior to handing them out, preventing students bringing their own scratch paper.

    f. Collect an exam signature card the first week of class. At each exam, have the students sign a different color card. If "substitution" is suspected, exam signatures can be checked against originals.

The ideal situation is to establish an academic atmosphere which promotes honesty as the standard. The above tips provide the faculty member with methods for detecting deviations and documented evidence for cases to be carried through the Student Judicial System.

RESOURCES AVAILABLE IN THE UNIVERSITY BOOKSTORE

("Teaching Aids" section, main floor)

BOOKS:

McKeachie, W.J. TEACHING TIPS: A GUIDEBOOK FOR THE BEGINNING COLLEGE TEACHER, 8th Ed. Lexington, MA: D.C. Heath and Company, 1978 ($18.00)

Fuhrmann, B.S. and Grasha, A.F. A PRACTICAL HANDBOOK FOR COLLEGE TEACHERS. Boston: Little, Brown and Company, 1983 ($16.85)

BOOKLETS: ($1.00 each)

Davis, R.H. and Alexander, L.T. GUIDES FOR THE IMPROVEMENT OF INSTRUCTION IN HIGHER EDUCATION. East Lansing, MI: The Board of Trustees, Michigan State University, 1977.

Title of guides in the series: (May be purchased separately)

Guide 1: Writing Useful Instructional Objectives

2: Task Descriptions and Task Analyses

3: Evaluating Instruction

4: Effective Use of Media

5: The Lecture Method

6: The Discussion Method

7: Individualized Instruction

8: Field Experience

9: The Laboratory

10: Simulation Techniques

11: Choosing Instructional Techniques

12: The Systematic Design of Instruction

These resources and many others are also available in Morris Library and the Center for Teaching Effectiveness, behind Newark Hall.

PART II

GUIDE TO CAMPUS RESOURCES

As a TA, you will often notice that students have problems learning course material, organizing their study time, or managing their personal lives. You can provide much help simply by listening and offering ideas. Many times a student will need more help than you can offer. In such cases, you will need to make a referral, usually to the appropriate University division. This section describes important campus resources for all University of Delaware students. (Note that CTE resources are available to TAs too.) The Center for Teaching Effectiveness has coordinated the preparation of this guide to major campus resources for new faculty and teaching assistants. The administrator of each support unit has provided basic information about the services provided.

August 1988

THE ACADEMIC ADVANCEMENT OFFICE

Contact: Ext. 2805

The Academic Advancement Office is a comprehensive academic support service providing extensive academic assistance through tutoring, advisement, academic success workshops/study skills, career exploration, personal and social advising and referral assistance. These services and activities are designed to help students maximize their academic ability while pursuing a degree. The Academic Advancement Office consists of three programs:

The General Academic Assistance Program provides academic support to students enrolled in full or part-time studies at the University who wish to improve their academic performance.

The Student Support Services Program is funded by the university and the U.S. Department of Education. This program is designed to provide academic support services to students who are financially disadvantaged, physically handicapped or first-generation college students who have demonstrated potential to succeed in post-secondary education.

The Academic Advancement Scholars Program provides mentoring and/or academic assistance when necessary to selected black scholarship recipients. Program counselors work closely with scholars providing advisement, career exploration and individual assistance to ensure opportunity for academic success.

The office has a Summer Enrichment Program which provides selected freshmen participants a chance to become acclimated to the University early.

ACADEMIC COMPUTING AND INSTRUCTIONAL TECHNOLOGY

The three units of Academic Computing and Instructional Technology (ACIT) offer a variety of services to faculty, instructors, and students to enhance teaching and learning at the University of Delaware.

Research and Development (R&D), at 451-8163, is the materials creation arm of ACIT, working with instructors to develop overhead transparencies, color slides, software programs, videotapes, slide shows, and videodiscs. Instructional Technology (IT), at 451-8162, operates the ACIT microcomputer and mainframe computing sites as well as the campus instructional television facilities, and delivers audiovisual equipment to classrooms and lecture halls. Academic Computing Support (ACS), at 451-8441, provides consulting and application software support, documentation, and user education services through its Consulting Room, Training Center, and Microcomputing Resource Center.

Brief descriptions of ACIT services are listed below. Further information can be obtained from ACIT services brochures, which list in detail all services, computing site locations and hours of operation, seminars, policies, and procedures. The monthly newsletter, "ACIT News," contains up-to-date information concerning new software, sites, seminars, and services. Faculty are automatically placed on the mailing list; graduate students and others may be added by sending their requests to "ACIT News" Editor, 305 Willard Hall Education Building.

For each University academic unit ACIT provides a Departmental Contact, who can furnish further information on ACIT services. Contacts' names and phone numbers can be found in the ACIT services brochure or by phoning 451-8162.

RESEARCH AND DEVELOPMENT

Graphics Services. Graphic artists produce original artwork for use in slides, transparencies, television programs, exhibits, and computer software. They make slides and transparencies for classroom projection of pre-existing art work, such as pictures and diagrams in books and magazines, and prepare poster session displays and exhibits for events such as Coast Day and national conferences. The graphics group can duplicate existing slides and make multiple exposures to add color, special effects, titles and labels. Transparencies can be full color, black-and-white halftone, or high contrast; they can also be enlarged and reduced. In addition to traditional methods, the artists use Macintosh and IBM microcomputers with laser printers to produce charts and drawings.

In order to provide equitable instructional graphics support, each instructor is given a $150 credit in material charges and 15 hours of labor for classroom instruction artwork per academic year. Time and materials beyond that will be charged to the department unless they are covered by a grant from the Center for Teaching Effectiveness or by an Instructional Graphics Grant from R&D. In most instances, graphics production turnaround is five days or less.

A "Request for Services" form should be submitted when requesting non-instructional graphics services. All non-instructional production is billed at the actual cost of materials plus artists' labor at $17.00 per hour during business hours and $25.50 per hour overtime. There is a half-hour minimum.

Video Production. R&D produces videotapes and videodiscs for use in University classes and computer software programs. This is a limited resource that is allocated

under the R&D annual Request for Proposals (RFP) process; all faculty and professional staff receive a notice of the RFP in November.

Academic and administrative units may contract with the video production group to develop broadcast quality informational videos. Contact the Video Production group at 451-2685 for details.

Software Development. R&D has developed educational software programs for thirty-five departments. A team approach joins faculty members with professional programmers and instructional designers. Systems supported include IBM PC, Macintosh, Apple II, SUN workstations, PLATO, and VAX. Like video, software development is a limited resource that is allocated under the R&D annual call for proposals. Staff also support faculty in writing software research or development proposals to federal agencies.

INSTRUCTIONAL TECHNOLOGY

Audiovisual Services. IT delivers for classroom use slide projectors, tape recorders, lecternettes, videotape players, 8mm and 16mm movie projectors, projector screens, and videotapes and films from the University's film collection. The check-out inventory includes portable projectors that can display both traditional video and computer graphics in a large-screen format for classroom use. The department also provides audiovisual support for University of Delaware convocations, commencements, and football games.

There are no rental or delivery charges for credit courses. Requests for charged equipment rentals must be submitted on a "Request for Services" form at least 24 hours in advance. Daily rental and delivery charges are available from Audiovisual Services, at 451-2685.

Equipment rental requests from student organizations require written approval of faculty or professional staff members. Student organizations are required to make a one-day rental deposit when placing the order. All equipment orders are subject to a $10 late pickup charge if equipment is not at the location for pickup at the time indicated on the Equipment Order form. This includes equipment loaned for credit courses.

Projectionists are available at $4.50 per hour with a two-hour minimum. Technical assistance is charged at $20 per hour ($30 per hour overtime). This includes equipment loaned for credit courses.

Television. IT operates an instructional television production facility in support of the University's instructional and technological outreach goals, including the production of videotape telecourses and live programming for satellite and microwave distribution.

IT also operates a television studio that supports the production of videotapes and videodiscs. The studio includes broadcast-quality cameras and editing equipment, a computer controlled character generator, and portable camcorder equipment used in remote shoots. It supports courses in which communications majors learn how to produce television programs. The television department also operates a mobile satellite receiving system for video conferencing and maintains all campus television equipment.

The television department also provides documentation video recording services, using a student-operated consumer-grade recorder. The result is suitable for

subsequent viewing and study, but it cannot be edited into a polished production. Documentation recordings are well suited for faculty who wish to view and improve their teaching style. Documentation recordings done for instructional purposes carry a minimum charge of $25 for labor and materials. You may call the Center for Teaching Effectiveness (X2027) for confidential assistance in an analysis of your classroom performance. Non-instructional recordings carry a minimum charge of $50 for labor, materials, and equipment rental. Labor is billed at the rates of $8 per hour for a video operator and $5 per hour for a video assistant, when needed for setup and long shoots.

Duplicate tapes of original video programs ranging in length from 15 to 120 minutes can be made. IT can make copies in the following formats: 3/4" U-matic cassette, 1/2" VHS cassette 2 hour/4 hour/6 hour, and Betacam 20 minute and SP 90 minute. Rates may be obtained by calling IT at 451-2685.

Educational Computing. IT operates many mainframe and microcomputing sites across the campus for instructional classes and general academic research projects. Microcomputing sites include IBM PC&PS/2, Macintosh, and Apple II; primary facilities are located in Newark Hall, Smith Hall, Morris Library, and Willard Hall Education Building. Physically challenged students may use adaptive devices to access ACIT microcomputers. Major terminal sites are located in Smith Hall, Willard Hall Education Building, Purnell Hall, Du Pont Hall, Townsend Hall, and Christiana Commons. All public sites are listed in the ACIT services brochure. A special brochure for students, available in sites and from IT at 451-8162, describes all public sites and provides information on accessing the computers. Many departments also have computing facilities that are available to their faculty and graduate students.

The following mainframe computers may be accessed by campus terminal sites and several microcomputer sites:

- An International Business Machines Corporation 3090-180E runs under the VM/CMS operating system, Release 5.

- A Digital Equipment Corporation VAX-8650 operates under the Berkeley UNIX[31] Version 4.3 Timesharing System.

- A Pyramid Technology Corporation 98xe operates under Release 3.1 of the OSx operating system, a version of UNIX compatible with Berkeley UNIX 4.3.

- A Control Data CYBER 830A runs PLATO services.

- A Digital Equipment Corporation VAX 11/780 operates under the VMS operating system.

Hundreds of hours of instructional microcomputing and mainframe software are available for student use. In addition to software developed at the University, this includes statistics programs, spreadsheets, CAD/CAM programs, word processors, graphics tools, databases, mathematics graphing programs, as well as subject-specific simulations, drills, tutorials, and tools. Anyone with a valid University I.D. may check out copies of software programs for use at the ACIT microcomputing sites.

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[31] UNIX is a trademark of Bell Laboratories.

Users must supply their own diskettes if they want to save their programs, data, or text. Disks are available at the University Bookstore and area computer stores.

Instructors wanting to know what software can be incorporated into their courses should phone their ACIT Departmental Contact. Contacts can also assist in the search for and preview of software that instructors would like to be purchased for student use.

Terminal and microcomputer classrooms are available to reserve by instructors who wish to hold special laboratory sessions for their students. Such sessions may be scheduled through either ACIT Departmental Contacts or site directors. Contacts also arrange for class access to instructional programs available on the PLATO system. To access the other ACIT mainframe computers, academic users must be authorized to use an account that is funded by a department. Each individual must have a user number as a unique identifier to the computing systems. The appropriate forms to allow someone to be added to a project and assigned a user number can be obtained from the Computer Accounting Office in Room 002A Smith Hall.

IT also offers Home Network, which lets the public use home computers to dial PLATO as a local phone call from any location in Delaware. Major components of this service are offered without charge to University faculty and staff.

ACADEMIC COMPUTING SUPPORT

Consulting Services. The Consulting Room, on the lower level of Smith Hall, is the primary source and initial contact for help with mainframe computing problems; consulting services for microcomputing are available in Room 155 Newark Hall. The facilities are operated by professional staff and trained students who are prepared to solve common problems that can be answered in a short period of time. Professional staff provide specialized consulting in their areas of expertise through the Consulting Room and by appointment. The I/O Services Counter, which provides access to the operations center for tapes and test scoring jobs, is also located in Smith Hall.

Instructors who require their students to use the computers for their class assignments are expected to teach them the basics of computer use or have their students attend Academic Computing Support seminars. While consultants will help decipher error messages and answer questions regarding general machine use, they will refer students back to their instructors for help with designing, writing, and debugging their programs.

ACS staff will gladly help instructors in designing and reviewing assignments and instructional aids for their students.

User Education. A wide variety of classes on microcomputing and mainframe use and special interest topics, such as statistical analysis or text processing programs, are offered each semester for both mainframes and microcomputers. Several of the sessions are designed especially for students without prior computing experience, who will be using a computer in their classes. Practice session worksheets that step through the login procedure for each mainframe computer are available in Smith Hall Consulting Room.

Introductory self-paced tutorials on various microcomputing topics can be obtained from the primary ACS training center in 155 Newark Hall. If the scheduled seminars do not meet the needs of a particular class, the instructor may be able to arrange for a custom-designed demonstration or workshop.

Microcomputing Resource Center. Located in 152 Newark Hall, the Microcomputing Resource Center provides help for University members in selecting personal computing hardware and software for purchase. The MRC offers an opportunity to look at and try out a variety of microcomputing products before purchase.

ACADEMIC STUDIES ASSISTANCE PROGRAM (ASAP)

ASAP provides a number of diagnostic, support, and remedial services in areas of academic achievement, study skills, and literacy. Among them:

Consultation & Assessment Service -- Students concerned over suspected learning or aptitude problems may request evaluation, free of charge. Testing is conducted by qualified psychologists, and educational recommendations are provided. To initiate service, come to 120 Willard Hall Building.

Learning Disabilities Support Service -- Students with dyslexia or other documented learning handicaps receive free remedial training and tutoring, as well as many other forms of assistance from their personal ASAP consultant. Call 451-1639 and request an appointment with David Johns.

Reading Study Center -- Through a course called College Intensive Literacy offered each semester on Tuesday and Thursday evenings (7:00 - 8:30), students can find help with the basics of reading, handwriting, and spelling, as well as with punctuation and sentence construction. This course is especially useful for students who are learning English as a second language. Sign up for 04-67-067 Section 10, or call 451-1639 for more information.

StudyLabs -- These are 2-hour diagnostic tutorials, using the student's own textbooks, lecture notes, and examinations. The student's study techniques are analyzed and more efficient strategies for reading, learning, taking notes, and preparing for examinations or projects are explained. Call 451-1639 for a StudyLab appointment, or come to 120 Willard to make one.

StudyGroups -- At the request of an instructor or program advisor, ASAP will arrange group tutoring sessions, meeting weekly, for students in courses where a majority are having difficulties. StudyGroup sessions are conducted jointly by an ASAP learning specialist, and an expert in the subject matter area. Ask your instructor to contact Beth Hommes, 451-1639.

TutorFind Service -- ASAP provides a computer-based directory of tutors, updated regularly. To locate a tutor, come to the ASAP office (120 Willard), or use any terminal connected to the port selector (basement of Smith, 155 Newark Hall, 022 Purnell, Christiana Commons, 220 Townsend, 138 and 141 duPont Hall). Directions are available at the sites. Rates are $4.50/hr for undergraduate tutors, and $6.00 for graduate tutors. Students on financial aid receive free tutoring, provided they register at the ASAP office and follow certain procedures explained there. To find a tutor (or to become a tutor) come to 120 Willard.

For further information about ASAP services, call 451-1639, or come to 120 Willard Hall Education Building, Main Street.

BOOKSTORE

CONTACT: (See Below)

The University Bookstore is a self-supporting auxiliary department of the University of Delaware located in the Perkins Student Center. Regular hours are 9:30 A.M.-6:00 P.M. Monday through Friday and 11:00 A.M. - 3:00 P.M. Saturday.

The primary purpose of the Bookstore is to make available to students books, duplicated materials, and supplies needed for course work. In addition the store maintains wide selections of general and technical books; college, art, engineering, and computer supplies; calculators; stationery; campus apparel; gifts; etc. Please pick up a copy of our brochure at the store for more information regarding our services and policies.

Graduate teaching assistants are advised to place requests for textbooks and supplies that their students will need with the faculty members responsible for the courses involved. The faculty member should forward these requests to the store in accordance to procedures outlined in the brochure "Information for Faculty." Desk copies of textbooks are to be ordered directly from the publishers.

We welcome your suggestions regarding books and supplies that you would like us to make generally available for students to purchase. however, we advise you not to send an entire class to the store to purchase something that you happened to see without advising us first. It would be unusual for us to have sufficient quantities of any one item to satisfy an entire class unless some arrangement has previously been made with us to have it available.

PERSONS TO CONTACT

Director	Paul H. Hanke	Ext. 2637
Textbook Manager	David B. Hanenkrat	Ext. 2809
Textbook Stock Control Supervisor	Terry L. Shira	Ext. 2809
Merchandise Manager	Dorothy S. Lofland	Ext. 2637
Supplies Supervisor	Helen M. Kellagher	Ext. 2637
General Books Supervisor	Diane M. Zabenko	Ext. 2637

CAREER PLANNING AND PLACEMENT

CONTACT: Dr. E. J. Townsend, Ext. 2391/1231/8479

The Career Planning and Placement Office provides programs and services designed to assist students in their career development. Although major emphasis is directed toward graduating students, opportunities are available to all students within the University. Our office is divided into three major focus areas, each of which contains specific programs and services. We would encourage those who are either utilizing theses services or assisting others who may be utilizing them, to become familiar with each of these areas and to contact members of our office should they have questions concerning them. The three areas include: Experiential Programs, Career Programs, and Placement Services.

Experiential Programs include a volunteer services program in the local community called the Field Service Experience Program; The Engineering Internship Program; School of Life and Health Sciences Cooperative Education Program; College of Arts & Science Field Studies Option; and the Student Employment Program. Volunteer and credited field programs are available in the local community as well as outside the local area. These may be engaged in on a part-time or full-time basis and students will be assisted by members of our staff in evaluating and selecting these opportunities. Each semester and Winter Session the course "Experiential Education" (EDD 374) is offered by the Career Planning & Placement Office. Students combine placements in the Field Experience Program with seminars and the discussion of learning from experience. The Student Employment Program includes both part-time and summer employment of a non-financial aid nature. Employment listings are available in the Career Resource Center.

Career programs provide a variety of opportunities for students to develop specific skills by which they can advance their career interest. Each week a regular series of workshops is offered including Resume Workshop, Interview Preparation, and Job Search Strategies. These provide the basic core of skills students need to identify potential employers and develop a plan by which they may seek employment. Career meetings are offered in conjunction with academic departments to explore career opportunities. Specialized programs are offered throughout the year on a number of specific areas and with majors in a number of specific fields. In addition, individual counseling is available as well as access to an extensive Career Resource Center.

Placement services are provided to students seeking full-time employment after graduation. Placement registration is required of students participating in the Campus Interview Program. Campus interviews are conducted from October through April and provide opportunities to interact with over 600 employer representatives concerning full-time employment. A Job Vacancy Bulletin is published and distributed weekly throughout the year. Listed in the Bulletin are current full-time opportunities as well as part-time and summer opportunities for students. Job Vacancy files which contain additional information about these opportunities are maintained in the Career Resource Center. Placement Services also include a credential service which provides students an opportunity to develop a file which may be copied and sent to prospective employers.

These varied services are available in our offices at Raub Hall on North College Avenue and Main Street. The general Office number is 451-8479. Students interested specifically in the Experiential Programs should call 451-1231 and those interested specifically in Placement Services, 451-2391.

CENTER FOR COUNSELING AND STUDENT DEVELOPMENT

CONTACT: Dr. John Bishop, Ext. 8107

The Center for Counseling and Student Development, 261 Student Center, offers full-time matriculated students a wide variety of counseling and student development activities. The services of the Center are designed to contribute to the personal, educational, and career development of University of Delaware students.

Counseling services are a major function of the Center and offer students an opportunity to discuss freely, in a confidential and professional setting, any matter that may be of concern to them. The counseling psychologists at the Center assist students in identifying problems, developing alternatives, and making decisions, either by using the services of the Center or those provided by others on or off campus. Members of the University community should understand that the interviews conducted by the psychologists are confidential, and information about those interviews is not released except upon a student's written request or as may be required by law.

Appointments to see a counselor may be made in person or by telephone, Monday through Thursday, 8:00 A.M. to 7:00 P.M., and Friday 8:00 A.M. to 5:00 P.M. The student's first contact with the Center will typically be an intake interview in which the student and counselor make decisions about the type of help needed. Intake appointments preferably are made in advance and are usually scheduled within a day or two or the student's request to see a counselor. Students requiring immediate help because of psychological difficulties are seen on an emergency basis.

Group programs represent another area of student development services offered by the Center. These programs include group counseling and therapy, growth groups, interpersonal skills workshops, career planning groups and various types of leadership training programs. Special interest groups in such areas as management of exam panic, decision-making, human sexuality, and women's concerns are also offered.

A Career Development Library located at the Center is available for students' use during office hours. The library includes updated career information and computerized career decision-making programs. A wide variety of workshops, courses and programs on career development issues are offered each semester.

The Center offers a full range of interest inventories, personality inventories, and ability tests. Some of these tests are used only in conjunction with counseling, while others are available to students upon request.

Center psychologists are interested in and available for consulting with students, staff, professionals, and faculty. These consultations often focus on planning special programs, studying problems in group dynamics and interpersonal communications, considering ways of improving student environments, or other issues that may have important psychological dimensions.

EDUCATION RESOURCE CENTER

The Education Resource Center provides multimedia facilities and services to support the curriculum of the College of Education. The Resource Center also has campus liaisons with the University Library and the Office of Instructional Technology.

Audiovisual Training Area
Training is provided in the operation of various types of equipment, including film projectors, tape recorders, a laminator, a ditto maker, a transparency maker, and video cameras and recorders. Students are encouraged to use the equipment for class assignments.

Curriculum Collection
Materials for elementary and secondary education subjects are contained in the collection and circulated for a period of two weeks to all students, faculty and members of the education community. Subject areas in the curriculum collection include health, language arts, marine education, mathematics, reading science, social studies, etc. Also included in the collection are professional readings on the subject of education.

Reserve Reading Room
Materials placed on reserve by the faculty are circulated for two-hour periods.

Special Education Collection
The Special Education Mini-Center provides materials to teachers of handicapped and learning disabled children, and includes a laboratory with assistive devices. Access to the statewide Delaware Learning Resource System is available through the Resource Center.

Hours
During fall and spring semesters, the Resource Center is open:

Monday - Thursday	8:30 A.M. - 9:00 P.M.
Friday	8:30 A.M. - 5:00 P.M.
Saturday	9:00 A.M. - 1:00 P.M.

Winter, summer and break hours vary. Call for details.

Location and Telephone Number:

013 Willard Hall Education Building

451-2335

ENGLISH LANGUAGE INSTITUTE

CONTACT: Scott G. Stevens, Director x2674
Katharine Schneider, Associate Director x2674

The English Language Institute offers language training for foreign students and faculty who need assistance with their writing, reading, listening, or speaking skills.

The Institute is located at 25 Amstel Avenue and is open Monday through Friday from 8:00 a.m. to 4:30 p.m. Foreign students or faculty needing language development may be referred to our office for English language proficiency testing to determine the extent of assistance required.

For graduate and undergraduate students, the Institute offers two English for Academic Purposes courses. One focuses on developing the oral/aural skills necessary for note-taking, individual presentations, and seminar discussions. The other course emphasizes composition skills necessary for research and college writing, and reading skills for improving speed and comprehension.

The Institute also offers private tutoring and individually-designed English language courses for visiting scholars and professionals.

International teaching assistants are provided training in language, pedagogy and culture through the Graduate International Teaching Assistant Training Program offered in August each year. Participation is mandatory for newly appointed ITAs and spaces are available without stipend for interested international graduate students.

The Institute also offers TOEFL and SPEAK testing. The TOEFL is offered six times a year. Interested students should contact the Institute. To help students prepare for language proficiency sections for such tests as the GRE, GMAT, and TOEFL, the Institute also offers a testing preparation course twice a year.

Family members of foreign scholars may enroll as full or part-time students in our intensive English program. In addition to classroom instruction, each student is entitled to listening/ reading laboratory time, access to PLATO computer-assisted instruction, and tutorial instruction. Students receive complete orientation to the community and can, at their request, be assigned to a Host family, who will meet with them for a variety of social and cultural activities.

GRAPHIC COMMUNICATIONS CENTER

CONTACT: Rodney L. Brown, Ext. 2153

Graphic Communications Center, a section of Supporting Services, is located in the General Services Building (NE40) at 222 South Chapel Street, Newark.

The primary responsibility of Graphic Communications Center is to offer printing support services to the administrative and academic communities of the University.

Services offered at Graphic Communications Center are (A) composition of copy to prepare an original, (B) two camera processes to make a film/master copy used to (C) print large or small volumes of duplicated copies. Copies can be printed on a variety of white or colored paper stocks using black or various tone colors (of ink) of the basic color spectrum.

Additional services offered are (A) collating of sets, (B) binding by stapling/stitching, perfect (wax) binding, multi-ring binders, plastic tape, (C) cutting of paper to required size, and (D) folding of sheets to specified sizes. Automatic stuffing of printed pieces into envelopes and labeling of internal mailing or sorting for bulk mailing external is also available.

Any or all of the above services can be obtained by completing a Graphic Communications form GCC7 and forwarding it via Campus Mail to Graphic Communications. Samples or a description of the work required must be included with the GCC7 form.

"Quick Copy," a service of Graphic Communications, is used most frequently by the academic community. From one to 300 copies of typed, printed, or paste-up originals can be duplicated and automatically collated into sets. They can also be stapled up to 58 sheets of paper. Originals up to 11x14 can be reduced to 8 1/2x11.

All reproduced copy is done on 8 1/2x11 - 20 lb mimeo white, blue, green and yellow stock plus University of Delaware watermark (when especially requested) using black ink only.

Normal turnaround time is approximately eight (8) working hours, with "beginning of semester" times extending to 24 working hours.

The Quick-Copy service is used frequently for classroom/course materials, thesis manuals, proposals, etc.

A "Quick-Copy" price sheet is available in all academic offices, or from Graphic Communications upon request.

The "Quick-Copy" service can be obtained by completing a white "Quick-Copy" Work Order from and putting it and your original inside the envelope, and placing it in your academic office's outgoing mailbox. Completed work is returned by messenger.

All forms required by Graphic Communications can be obtained from your academic office. These forms must be completed fully and have an authorizing unit administrator's signature. Also be sure to indicate a telephone number where you can be reached in the event some question arises concerning your work.

Reproduction of original theses is also obtainable at Graphic Communications and is

the only personal work that can be accepted by them. Rates charged or systems used are dependent upon the number of copies required.

For assistance or information about Graphic Communications or any of the Services offered there, call 2153. Staff personnel are always available to assist, even through the normal lunch period. Normal working hours are from 8:00 A.M. to 4:30 P.M., Monday through Friday.

SERVICES FOR HANDICAPPED STUDENTS

The University of Delaware is committed to helping each student pursue a chosen field of study to the full measure of his or her ability. In this regard, the Dean of Students Office has a genuine concern for the needs of handicapped students. A number of specific services and programs are offered including:

- Information and referral assistance throughout the University's preadmissions process
- Specialized orientation tours of campus
- Informal counseling
- Assistance in obtaining priority status for scheduling
- Temporary loans of cassette tape recorders
- Reader services
- Liaison with faculty, professional staff and staff agencies
- Assistance in locating tutors
- Referrals for Psychoeducational Testing
- Assistance in locating attendants for ongoing and occasional needs
- Classroom notetaker services
- Training in and use of specialized equipment (e.g.: Kurzweil Reading Machine, Talking Calculators, Talking Computer Terminal, Braille Terminal, Closed-Circuit TV Magnifier, V-Tech Computer Equipment for low-visioned students)

Further information regarding handicapped student services may be obtained by contacting the Dean of Students Office, 218 Hullihen Hall, 451-2116.

UNIVERSITY OF DELAWARE LIBRARY

The University of Delaware Library includes the Hugh M. Morris Library and four branch libraries: The Agriculture Library (002 Agriculture Hall), the Chemistry Library (202 Brown Laboratory), The Physics Library (221 Sharp Laboratory), and the Marine Studies Library (Cannon Laboratory in Lewes).

Reference and Information Services

The Information Desk, located on the main floor, is a first stop for informational and locational queries about the library, as well as for help with DELCAT, the on-line catalog and the card catalog.

The Reference Desk, beyond the atrium stairs on the main floor is the next stop for assistance. Staff there help with a wide variety of information needs, including finding appropriate materials for research projects and interpreting the library's resources. Reference Desk staff also make use of online databases at the desk to assist in answering your questions.

Databases on Compact Disc

Stop at the Reference Desk with questions requiring use of online databases. Assistance with the library's databases on compact and optical disc is available here. These are journal reference databases you may search yourself at no cost and include indexes such as ERIC, MEDLINE, PSYCHLIT, and SOCIOFILE.

Multiple terminals are also available for access to INFOTRAC which includes references from over 1000 general interest and business journals. INFOTRAC is located in the Reference Room. The library also has a microfilm collection, located on the Lower LEVEL, that contains the entire articles of many of the references from INFOTRAC.

DELSEARCH: The Library's Online Database Search Service

DELSEARCH, located in the reference Department, is the library's name for its comprehensive database search service that covers more than 300 databases in virtually every field including engineering, science, business, history, art, and medicine.

Many databases are online equivalents of printed indexes to journal literature, such as Chemical Abstracts or Philosopher's Index, while others exist only as online computer databases, such as Management Contents and an index to the Philadelphia Inquirer. Abstracts are available for many of the databases and can be printed online in most cases.

To request that a computer search be run by a professional librarian, stop at the Reference Desk to obtain a search form and make an appointment. Costs vary with the database selected and complexity of the search, but average between $15 and $40. The requestor is present during the search, which produces a printed list of references. Occasionally, for a very long list, the references may also be mailed, and arrive within a week.

For more information, contact the DELSEARCH Coordinator at 451-2432.

User Education

The Reference Department is also responsible, with the English Department, for providing Plato-based instruction in library research skills required of all freshmen taking E110.

Library staff in the main library and its branches also provide discipline-specific orientation to the library and its resources for classes at the request of faculty or teaching assistants. Telephone the Coordinator of Library User Education, 451-2432, for information about library user education for classes.

Audiovisuals

The Media Services Department, located on the lower level of the Morris Library, is responsible for the audiovisual collection and services.

The audiovisual collection includes films, videocassettes, laser discs, slides, and spoken word recordings. The collection may be used within the Morris Library at one of 30 individual carrels on the lower level for assistance.

The Media Viewing Room, also located on the lower level, may be scheduled for instructional use by classes requiring use of media in the collection. It contains seating for 40 and rear-screen projection is possible for any audiovisual format. Call 451-8461 to schedule the Media Viewing Room.

Audiovisual materials may also be booked and delivered for instructional use by University faculty and staff. Call 451-8461 for more information.

Microforms

The Media Services Department provides services to those using microform materials. Readers and reader/printers for access and printing of materials are adjacent to the collection of microfilm, microfiche and microcard located on the lower level. Many government publications, educational and technical reports, and journals are available only in microform. Call 451-1732 for additional information.

Microcomputing Site

The microcomputing site, operated through the Media Services Department, in cooperation with the Office of Instructional Technology, includes 30 IBM PCs and 20 Macintosh microcomputers which can be reserved for individual and class use. Call 451-8481 for additional information.

Interlibrary Loan Services

Books and articles not owned by the University of Delaware can often be obtained from other libraries. The privilege of requesting interlibrary loans is extended to all faculty and graduate students. Requests for this service should be made at the Interlibrary Loan Office, which is located on the first floor of the Morris Library.

The loan for books is determined by the lending library; normally it is two weeks from the date of receipt. Periodical articles are usually available in photocopy. Fees charged by the supplying library for photocopying and borrowing are passed on to the user; most journal articles can be obtained for less than $5.00.

Because the Library is a member of a computerized interlibrary loan network, most material can be obtained within a few weeks. Some requests can be filled considerably sooner.

Some libraries will allow dissertations to circulate on interlibrary loan, whereas others will not. The interlibrary loan staff can usually determine the policy of the library at the college or university at which the dissertation was written.

For more specific information about interlibrary loan procedures, read "Interlibrary Loan Services," copies of which are available in the Interlibrary Loan Office, or phone the office at 451-2236.

DELCAT

DELCAT, an integrated on-line state-of-the-art library system, is available in the Morris Library and branch libraries. An on-line catalog to 600,000 bibliographic records came on-line in October 1986 and on-line circulation came on-line during the summer of 1987. DELCAT's on-line catalog replaced much of the information in the manual card catalog by putting it into an on-line database which can be accessed by 50 color terminals located in the Morris Library, Agriculture Library, Physics Library, and Chemistry Library. With the implementation of on-line circulation, users can query DELCAT from any terminal for information on authors, titles, and subjects and also learn whether an item is already charged out.

Circulation Procedures

The Circulation Department, located at the entrance to the Morris Library, is responsible for charging all materials from the general collection. The Circulation Desk is staffed during all hours that the Morris Library is open. Library hours are posted on the hours panel inside the foyer of the Morris Library and are available by calling 451-BOOK.

In addition to the normal loan periods, graduate students may borrow bound and microform periodicals (which normally do not circulate) for two hours, and faculty and professional staff may borrow these materials for three days.

Call-ins

Circulated books that are needed by another borrower may be recalled after 14 days, although it may take as long as two or three weeks to obtain an item if the current borrower declines to return it. After checking a DELCAT terminal to verify that a needed book is circulating, consult a staff member for assistance in completing a call-in slip. For more details about this service, ask at the Circulation Desk.

Renewals

Items not requested by other individuals may be renewed as often as needed. Renewals must be done in person with the book in hand. Telephone renewals are not possible.

Fines and Fees

Overdues

Borrowers are responsible for returning Library materials on time. Ten days after an item becomes overdue, a notice reminding the borrower that the item

is overdue is mailed. There is no charge for this reminder. If the item is not returned prior to the production of a second reminder notice, the borrower will be charged a $3.00 processing fee for each item listed on the notice.

Billing Procedure

When an item is 25 days overdue, it is assumed lost and the circulation system generates a bill that is sent to the borrower. Fines and fees are payable at the Cashiers' Office in Hullihen Hall. No money is collected at the Circulation Desk.

For more specific information about Circulation procedures, read "Circulation Procedures and Services," copies of which are available at the Circulation Desk, or phone the Circulation Department at 451-2455.

Reserve Room

The Reserve Room, located on the first floor of Morris Library, makes selected, required readings available to students in a given course. Materials on reserve are listed in the course reserve notebooks kept on the table immediately visible upon entering the Reserve Room. All materials borrowed from the Reserve Room must be returned to the bookdrop at the service desk in the Reserve Room. Reserve materials returned to any other bookdrop may quickly accrue overdue fees.

Faculty should read "Guidelines for Faculty Using the Reserve Room" and students should read "How to Use the Reserve Room" for specific information about Reserve Room procedures. Both are available at the service desk in the Reserve Room.

Special Collections

Special Collections, located on the second floor of the Morris Library, houses rare books, manuscripts, historical maps, prints, photographs and other items requiring special care and proper environmental conditions. These original source materials support research and instruction in all disciplines, with special strength in English, Irish and American literature; American history, especially the history of Delaware; the history of chemistry, technology and engineering; the history of horticulture and landscape architecture; and the decorative and applied arts. Printed materials are cataloged in the Morris Library card catalog and DELCAT; access to manuscripts is provided by indexes and other finding aids located in Special Collections, although manuscript records are now being input into DELCAT.

Outside Special Collections is a gallery, where changing exhibits focus on an author, subject or theme. These exhibits, accompanied by publications free of charge to all visitors, inform the university community about the holdings in Special Collections and highlight some of the ways they can be used in research. Arrangements can be made for class tours of Special Collections exhibits and for presentations on Special Collections resources related to specific seminars or individual research projects. For information call the Assistant Director of Libraries for Special Collections, 451-2231.

Proper Identification

All borrowers are required to present appropriate identification when borrowing library materials. For students and employees of the University of Delaware, this is the University I.D. card. Paid and Gratis borrowers should consult the "Library Privileges for Individuals not Affiliated with the University of Delaware" available at the Circulation Desk.

Security System

Any individual entering a library is subject to the rules and regulations of the University of Delaware, including the inspection of possessions upon leaving the library. There is an electronic security control system at the exit from the Morris Library to protect the collection for the benefit of all users. Library users are required to show all materials at the exit gate prior to leaving the building. Theft and mutilation of library materials are, and will be treated as, serious offenses.

MATHEMATICAL SCIENCES TEACHING AND LEARNING CENTER

CONTACT: Dr. Ronald H. Wenger, Director
028/032 Purnell Hall, Ext. 2140

The Mathematical Sciences Teaching and Learning Center (Math Center) provides a variety of services to students enrolled in the lower division mathematics courses through calculus level.

Tutorial Assistance

The Math Center is staffed by professional mathematics instructors as well as graduate and undergraduate students. The professional staff, who teach Math 010 (Intermediate Algebra), Math 114 (Elementary Mathematics and Statistics), and Math 115 (Precalculus), provide tutorial help in the Math Center to students in these courses. Math graduate students are available for help in most of the 200 level calculus courses during regularly scheduled hours. Assistants offer tutorial help in topics from algebra through calculus.

The tutorial resources available to all students include textbooks and their companion answer books, worksheets designed to develop specific math skills, and math exam files with solutions useful for review.

All assistance in the Math Center is offered on a drop-in basis. The hours for the Math Center during regular semesters are:

Monday - Thursday	9:00 A.M. - 9:00 P.M.
Friday	9:00 A.M. - 5:00 A.M.

For hours during short sessions, call 451-2140.

MINORITY AFFAIRS

CONTACT: Ms. Judith Y. Gibson, Ext. 8735

The Minority Affairs Office, located at 305 Hullihen Hall, assists the University community in the development of educational opportunities for minority persons (Black Americans, Hispanics, Native Americans). Under the leadership of the Assistant Provost, it seeks to foster a greater awareness and understanding of racial issues that will promote an improved educational environment for all students, faculty, and staff.

Programs facilitated through this office are the Campus Pals program which links upperclass students with black freshmen and transfer students; the Graduate Recruitment Program; the Summer Academic Enrichment and Sports Program; Black Freshmen and Transfer Student and Graduate Student Orientation sessions; Visiting Minority Scholars program and racial awareness workshops.

Black students, like graduate women, often report being discouraged, angered, or confused by the kinds of subtle and overt verbal and non-verbal behaviors displayed by faculty towards them. Frequently they are discouraged from entering or from continuing--once they have entered--"harder" curricula. It has been reported that they find themselves the victims of insulting jokes, remarks and innuendoes both within and outside classroom situations. These jokes and actions are often based on incorrect assumptions about minority students' capabilities, attitudes, and backgrounds.

Black students have reported that faculty expect them either to be academically incompetent or to be academic superstars who are "exceptions to the rule." Either one of these expectations places a great deal of unwarranted pressure on black students. Expectations should be conveyed in a manner that enables the black student to feel that neither more nor less is expected of him or her than of any other student. Frequently, minority students--and especially black students--are called upon to comment on or address issues from their ethnic group's perspective. Individual students should neither be asked to offer their groups' perspective nor to defend it.

Recommendations for Change

Pay particular attention to classroom interaction patterns during the first few weeks of class, and make a special effort to draw women and black students into discussion during that time.

Avoid using examples or making reference to situations that may not necessarily be relevant to the black students' experiences (for example, avoid statements such as "when you spent your vacation sunbathing at the beach").

Tell your classes that you expect all students to participate in class discussion.

Notice whether black students are included in groups and take appropriate action to include them if they are not.

If you are personally assigning students to groups, do not automatically pair or group black students with one another. In addition, do not permit a black student to be excluded from a group.

Intervene in communication patterns that may exclude black students. For example, if other students respond to one another's points but ignore an appropriate comment offered by a black student, take control of the discussion, and include the comment that has been overlooked.

Encourage students to listen to and appreciate perspectives and interpretations of situations offered by black students and discourage devaluation of such comments because they are from a different perspective.

Note patterns of interruption to determine if black students are interrupted more than other students; either by yourself or by other students. Make a special effort to ensure that all students have the opportunity to finish their comments.

Give black students as well as all others the same opportunity to ask for and receive detailed instructions about the requirements for an assignment.

Use the same tone and body postures talking with black students as with other students (for example, avoid a disinterested or impatient tone when speaking with black students, but a tone of interest and attention when talking with other students.)

Ensure that black students are not "squeezed out" by classmates from viewing laboratory demonstrations or engaging in other group assignments.

Do not assume that a black student needs to seek help at the writing center until you have read and appropriately analyzed a writing sample.

DEPARTMENT OF OCCUPATIONAL HEALTH AND SAFETY

CONTACT: (See below)

Services provided by this department, located at 417 Academy Street, are available to all students and employees of the University of Delaware.

The purpose of the office is to create and maintain a safe environment for learning, living, and working. Major activities involve:

1. Investigations of reported safety hazards to personnel or facilities including fires, motor vehicle accidents involving University vehicles, work-related personal injury cases, accidents, spills and emergencies associated with the use of radioactive materials or hazardous chemicals, and liability claims against the University.

2. Loss prevention and fire safety inspections of facilities.

3. Conduct training programs in loss prevention, fire safety and control, laboratory safety, chemical waste disposal, radiation safety, shop safety, farm safety, and evacuation training when requested by departments or by arrangement.

4. Develop University safety policies, guidelines, and procedures.

For services provided by the DOHS, the following persons should be contacted on Extension 8475.

All Programs	Stuart Kline, Director
Radiological Health	Robin Elliott, Health Physicist
Hazardous Waste & Asbestos Specialist	David Levandoski, Environmental Health
Chemical & Biological Safety	Joseph Miller, Industrial Hygienist
Occupational Safety	James Domorod, Safety Engineer
Fire Prevention	Bernie Alexander, Fire Prevention Specialist
Reporting of Safety Hazards or Safety Problems	Any of the above
Motor Vehicle Accident Reports	John Baynes, Plant Operations
Workmen's Compensation Claims	Doris Riley, Ext. 2171 Employee Relations
General Liability	Gary Stokes, Ext. 2110 Director of Insurance

OFFICE OF WOMEN'S AFFAIRS

CONTACT: Ms. Donna Tuites, Ext. 8063

The Office of Women's Affairs (OWA), located at 219 McDowell Hall, provides information, resources, and incentives to work toward achieving opportunity and equity for women in education, leadership, career and professional development, and all other endeavors in the University community. The office works to increase awareness and understanding of the changing roles of women and men, to encourage women to develop their intellectual talent, to achieve academically, and to participate equally and fully in society.

Office responsibilities include:

- serving as an advocate for women
- increasing awareness and understanding of the need for opportunity and equity for women
- providing confidential advice and support for U.D. women having perceived problems and possible grievances, including sexual harassment
- developing and implementing programs which promote professional and personal growth for all women at the University
- maintaining a collection of resources on women's issues
- providing referral service

OWA also gives administrative support to the Commission on the Status of Women (CSW). The CSW is a representative campus group, including students, that works to improve the status of women and to respond to their concerns. It identifies problem areas, makes recommendations for change, and works closely with the Office of Women's Affairs to implement recommendations. The 17-member group reports directly to the President. Areas addressed have included safety, sexual harassment, sexism in the classroom, hiring and promotion of women, salary equity, and child care. The student advisory committees to the OWA and the CSW provide input from the perspectives of graduate and undergraduate students regarding the need for programs and resources for women students on campus.

The CSW also sponsors two programs that involve matching funds: the Women Students Travel Award and the Visiting Women Scholars Fund. The Women Students Travel Award grants funds to women undergraduate and graduate students for research paper presentations at professional meetings and conferences. The Visiting Women Scholars Fund assists departments, in bringing women speakers to campus.

UNIVERSITY WRITING CENTER

CONTACT: Carol-Anne Ritter, Ext. 1168 015 Memorial Hall

The services of the Writing Center are available free of charge to any University student, part-time or full-time, graduate or undergraduate. Open from 9:00 A.M.-12:00 and 1:00-5:00 P.M. Monday through Friday, and 6:00-9:00 P.M. Monday through Thursday, the Writing Center provides a variety of services. Walk-in students will receive help as staff members become available. Appointments may be made to ensure an hour of time with a staff member. Any student may attend voluntarily or be referred by a faculty member.

The main purpose of the University Writing Center is to help solve individual writing difficulties, such as problems in grammar, spelling, punctuation, diction, written presentation, and organization. Students work with the teachers on a one-to-one basis on their particular problems. The emphasis of writing conferences is on teaching students to revise and edit their own work; the Writing Center staff does not write, edit, proofread, or check the content of students' papers.

In addition, the staff provides intensive preparation to students for the Qualifying Examination for Teachers of English, administers the Qualifying Examination, and Teaches E011, a course required of entering freshmen whose writing skills are judged to be below college standards. An essential function of the Writing Center is to clear all official Communication Conditions issued to students by faculty members. The Communication Condition system is a method by which a faculty member can offer a student an opportunity to improve writing skills. The forms for issuing a Communication Condition may be obtained from the departmental secretary.

The staff at the Center is also experienced in dealing with the oral and written communication problems of students whose native language is not English. Faculty members may refer any foreign student who, although competent in the field of study, may encounter difficulty in expressing competency through either oral or written communication.

Faculty members or TAs may inform their students of Writing Center services at any time during the academic year. For further information, visit or call the Center.